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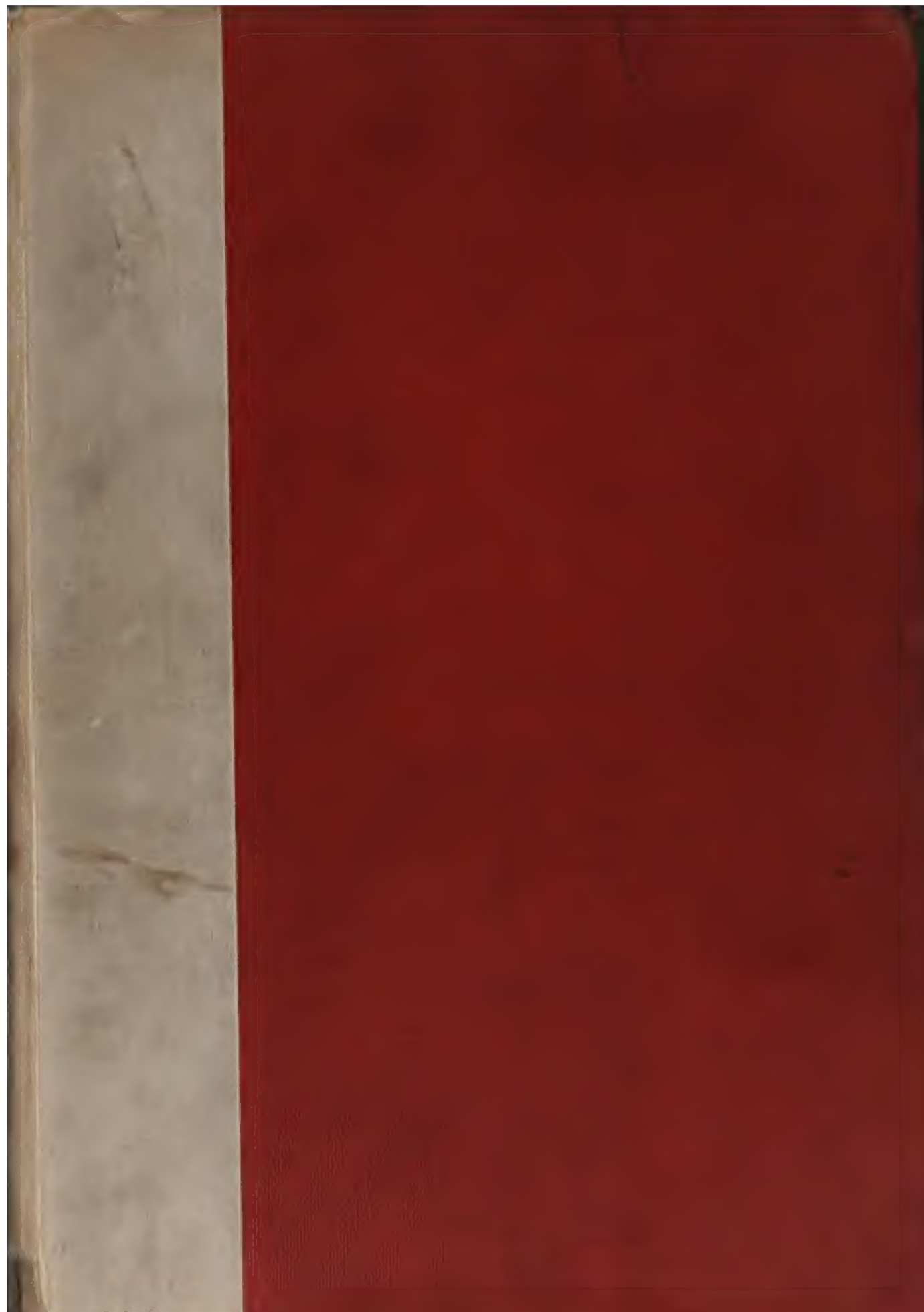
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LELAND STANFORD JUNIOR UNIVERSITY





Cornell University

A HISTORY

BY

WATERMAN THOMAS HEWETT, A.B., Ph.D.

PROFESSOR OF GERMAN LANGUAGE AND LITERATURE

VOLUME ONE



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TO THE ALUMNI
WHO HAVE STUDIED IN THESE HALLS,
AND WHO HAVE GONE FORTH TO A
LARGER LIFE BEYOND, WHOSE SUCCESS
IS OUR SUCCESS, WHOSE HONOR IS OUR
HONOR, THESE VOLUMES ARE DEDICATED
BY THE AUTHOR



PREFACE

THE foundation of Cornell University marks an epoch in the history of higher education in the United States. Its origin is coeval with the new direction in modern learning.

The classical languages, philosophy, and mathematics had formed the basis of instruction in the older colleges. The claim of modern languages as instruments of literary culture, and their historical study as furnishing a philological training as far-reaching and as fruitful in its results as that of the ancient languages, had not been previously recognized. The revelations of mediæval literature, English, German, French, Italian, and Norse, were not for the college student but for the specialist. History unveiling national growth, the development of society and civil institutions, the struggle of humanity for liberty, and the expansion of the human intellect in art and science were, a half-century since, subjects unknown in the curriculum of many colleges. Political economy received partial recognition, but the relations of labor and capital, the study of social conditions, of the rights of the employed in factories and mines, the whole theory of punishment, of population and crime, were the speculation of solitary thinkers and of a few philosophers.

Natural science, even experimental physics, and laboratory methods in chemistry, were largely ignored in instruction. Scientific agriculture had few votaries and but few students. Possible national wealth from the scientific treatment of soils and forests, the care of domestic animals, the investigation of insect pests, the scientific study of fruits and grasses, the wealth of the

sea in fishes, were not popular but private subjects of study. Training in nature-study was confined to a few observers, and not for the masses. Philosophy was theoretical, and the period of experimental psychology had not dawned. The revelations of the microscope and of the spectroscope, and the whole science of bacteriology, which has transformed medicine, were but imperfectly known. The applications of electricity, which have changed modern business and social intercourse as well as opened new pathways in science, had not been discovered. To teach popular science, or science popularly, was to degrade it. The study of agriculture was an inferior pursuit. Education was confined to a few subjects, and there was a fixed curriculum.

Under these circumstances Cornell University had its birth. Beyond the two courses in agriculture and the mechanic arts provided for in the Act of Congress, the constitution of the university was largely due to its first president, Dr. Andrew Dickson White. Personally he had become dissatisfied with the old education. Modern interests appealed to him profoundly. While recognizing what was valuable in the education of the past he made provision for and emphasized the new subjects in science, literature, history, and sociology. Instruction in some subjects seems largely due to his initiative, as in sociology. He was one of the first to recognize the importance of electricity, and to accord a place to it in a university curriculum. Freedom of study was a cardinal doctrine of the new university from the first. The absence of a minute oversight over students, and a large confidence in their manhood and capacity for self-direction, was an early feature. The higher education for woman was one of the fundamental principles of the university from an early period in its history.

Training for life has been a main purpose of all in-

struction. The development of research and the corresponding growth of publication have been features of the later development of the university, and are coincident with the enlargement of its resources and the growth of graduate instruction, which followed the coming of President Adams.

If I should characterize the different periods of university history, the first period embracing the administration of President White would be the formative period, the second, that of President Adams, the period of organization and of development based upon enlarged resources, while that of President Schurman would be the building epoch and that of the division into colleges.

A favorite expression of Mr. Henry W. Sage was: "The history of the university is a heart history." Its practical aims, and the lives and the affections of men, have constituted its wealth. As it exists to-day, it is the product of the affection, the devotion, the sacrifice of those who have endowed it, and of those who have taught within it. Here character has been formed, and the most precious legacy of the university to the nation will be the gift of its young men who go forth to contribute to its upbuilding, as well as the truth here discovered and wrought into life.

The breadth of the curriculum, the equal recognition of classical and modern literature, history and natural science, the provision for training in technical subjects, naturally attracted students from all parts of the country and even from Europe, giving to the academic life from the first a cosmopolitan character. Out of 3,230 students, fifty-six per cent. are from New York, about twenty-one per cent. from Pennsylvania, New Jersey, Ohio, and Illinois, five per cent. from New England, and a little over three and one-fifth per cent. from foreign countries. From the date of the first Japanese

student here in 1876, the late distinguished botanist of the University of Tokio, Professor Yatabe, to 1896, thirty-four Japanese students had studied here, a number which has constantly increased both from that country as well as from other parts of the Orient, and especially from the states of South America.

The growth of the university in the number of students pursuing graduate courses, as well as the marked increase of publications on the part of the faculty and graduate students, are among the most striking features of recent years.

Before the completion of the first century of its existence, one hundred thousand students will have studied in these halls. With each succeeding year memories of friendship, of enthusiasm, of youthful rivalry, and of victory will be associated more and more with the buildings, and the walks around our campus. The student of to-day is the alumnus of to-morrow, and the future of the university will be found in the loyal support of its graduates.

I am profoundly indebted to my colleagues, whose generous and valued co-operation has often been bestowed in the midst of other and exacting duties; but the grace with which their assistance has been rendered has made me permanently their debtor. To the directors of the several colleges I am especially indebted; to Director Ernest W. Huffcut, B. S., LL. B., of the College of Law; Director William M. Polk, M. D., LL. D., of the Cornell University Medical College in New York; William F. Durand, Ph. D., Acting Director of Sibley College; Charles L. Crandall, Acting Director of the College of Civil Engineering; Liberty H. Bailey, Director of the College of Agriculture; James Law, F. R. V. S., Director of the New York State Veterinary College; Abram T. Kerr, B. S., M. D., Secretary of the Medical Faculty in Ithaca; also to Charles E. Bennett,

A. B., Litt. D., Professor of the Latin Language and Literature; Walter F. Willcox, A. B., Ph. D., Dean of the Faculty of Arts and Sciences, and Professor of Political Economy and Statistics, and to his former colleague, Robert C. Brooks, A. B., Ph. D., now in Swarthmore College; Edward L. Nichols, B. S., Ph. D., Professor of Physics; Captain Frank A. Barton, M. E., U. S. A., Professor of Military Science and Tactics; George L. Burr, A. B., LL. D., Professor of Mediæval History; Charles De Garmo, Ph. D., Professor of the Science and Art of Education; Charles Mellen Tyler, A. M., D. D., Professor Emeritus of Christian Ethics and of the History and Philosophy of Religion; the Rev. Nathaniel Schmidt, A. M., Professor of the Semitic Languages and Literatures; Ralph S. Tarr, B. S., Professor of Dynamic Geology and of Physical Geography; Edward F. Titchener, M. A., Ph. D., Sage Professor of Psychology; James E. Creighton, A. B., Ph. D., Sage Professor of Logic and Metaphysics; Evander McGilvary, A. M., Ph. D., Sage Professor of Moral Philosophy; William A. Hammond, A. M., Ph. D., Assistant Professor of Ancient and Mediæval Philosophy and *Æsthetics*; James McMahon, A. M., Professor of Mathematics; George F. Atkinson, Ph. B., Professor of Botany; John H. Comstock, B. S., Professor of Entomology and General Invertebrate Zoölogy; Simeon H. Gage, B. S., Professor of Histology and Embryology; Duncan Campbell Lee, late Assistant Professor of Elocution and Oratory; also to George W. Harris, Ph. B., Librarian, both for the chapter on the history of the library, and a biographical sketch of Professor Willard Fiske.

The author has been permitted by the editor-in-chief of the *Cornell Magazine*, Mr. Willard A. Austen, to use several articles upon Student Activities, published some years since, when it was under his direction. Among

these articles are: Fraternities, by Willard A. Austen; Football, by Ellis L. Aldrich; Convivial Societies, by J. G. Sanderson; Social Life, by Jerome Barker Landfield; Literary Societies, by Fayette E. Moyer; Baseball, by Edward Davis, and The Cornell Navy, by J. W. McCulloh—many of which were written from a fresh study of the sources, the facts, and the language of which have at times been adopted.

To Mr. John N. Ostrom and Mr. Percy Hagerman, for articles upon early boating, I am indebted, and to Mr. C. E. Courtney for ready assistance at all times, and for an interesting collection of photographs of crews and races, which I have been permitted to use. For a sketch of Mr. Courtney I am indebted to an article published in *The Commercial Travelers' Magazine* some years since, written by Mills Butler; also to Dr. Clark S. Northup, Assistant Professor of the English Language and Literature, for permission to use an address upon Sage Chapel, delivered April 17, 1904.

It is to be regretted that satisfactory material for the biographies of several of our most munificent benefactors was not available.

From the early correspondence of President White and of Mr. Ezra Cornell, I have derived many facts. To Dr. White, whose presence among us is a benediction, I owe a constant kindly interest and most valuable assistance in the interpretation of events. To many others for suggestions and assistance: to the Hon. Francis M. Finch, LL. D., to the late Governor Alonzo B. Cornell, and to numerous colleagues for the revision of special chapters, I am greatly indebted.

I have sought in all cases to verify accepted facts by consulting the original sources. Much is preserved in the college press, and in contemporary journals.

My own indebtedness, and that of all who use these volumes, will be constant to my secretary, Miss Lucy H. Ashton. To her continuous labor for nearly two years much of the material and the accuracy of the present work are due.

W. J. Bennett

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CORNELL UNIVERSITY: A HISTORY

CHAPTER I

THE UNITED STATES GOVERNMENT AND HIGHER EDUCATION

THE duty of the government to support and foster higher education existed with the first dream of national independence. In October, 1775, when Washington was in camp in Cambridge, Samuel Blodget,¹ who was later distinguished as the author of the first formal work on political economy published in the United States, remarked in the presence of Generals Washington and Greene, with reference to the injury which the soldiers were doing to the colleges in which they were encamped: "Well, to make amends for these injuries, I hope after our war we shall erect a noble national university, at which the youths of all the world may be proud to receive instruction." Washington answered: "Young man, you are a prophet inspired to speak what I am confident will one day be realized." One of the earliest provisions of the colonial governments was for popular education, in addition to which were charters for private and county schools and colleges, which were to be supported by general taxation. In the Constitutional Convention of 1787, on May 29, Charles Pickering proposed that Congress should have power to establish and provide for a national university at the seat of government of the United States. Mr. Madison proposed later that this should be one of the distinctly enumerated powers in the Constitution. On Septem-

¹ Samuel Blodget's *Economica*, p. 22.

ber 14 Mr. Madison and Mr. Pickering moved to insert "power to establish a university in which no preference or distinction should be allowed on account of religion." The action proposed was lost, not from opposition to the principle involved, but because such an addition to the Constitution would be a superfluity, since Congress would possess exclusive power at the seat of government, which would reach the object in question. The patriot and scientist, Dr. Benjamin Rush, issued an address to the people of the United States, strongly urging a Federal university as the means of securing to the people an education suited to the needs of the country, with post-graduate scholarships, and fellowships in connection with the consular service and an educated civil service. "The people," he said, "must be educated for the new form of government by an education adapted to the new and peculiar situation of the country." President Washington, in his address to Congress on January 8, 1790, said: "There is nothing that can better deserve your patronage than the promotion of science and literature. Knowledge is in every country the surest basis of happiness. In one in which the measures of government receive their impressions so immediately from the sense of the community as in ours, it is proportionably essential. . . . Whether this desirable object will be best promoted by affording aids to seminaries of learning already established, by the institution of a national university, or by any other expedients, will be worthy of a place in the deliberations of the legislature." The response of both the Senate and the House of Representatives to this address was favorable, the latter saying: "We concur with you in the sentiment that agriculture, commerce, and manufactures are entitled to legislative protection, and that the promotion of science and literature will contribute to the security of a free gov-

ernment. In the progress of our deliberations we shall not lose sight of objects so worthy of our regard." Washington contemplated also the possibility of the appropriation of certain western lands in aid of education. Washington's emphatic and repeated appeals to Congress found final public expression in his Farewell Address of 1796, in which he urged the American people to "promote, as a subject of primary importance, institutions for the general diffusion of knowledge. In proportion as the structure of government gives force to public opinion, it is essential that the public shall be enlightened." By his last will, signed July 9, 1799, he expressed his regret that the youth of the United States should be sent to foreign countries for the purpose of education. He bequeathed fifty shares of stock in the Potomac Company, of the value of five hundred dollars each, to the national government, for the endowment of a university in the District of Columbia. He hoped thereby to do away with local attachments and state prejudice. Nearly all of Washington's great contemporaries were animated with a like purpose. Presidents John Adams, Thomas Jefferson, Madison, Monroe, and John Quincy Adams were eloquent, in their messages to Congress, in their recommendations of this patriotic purpose. Jefferson held that the revenue from the tariff on foreign importations might be appropriated to the great purpose of public education.¹

This early recognition of the duty of the national government to promote higher education is of importance in considering the history of the passage of the Land Grant Act of 1862, in behalf of technical and liberal education, and the various views by which that measure was advocated or opposed.

¹ See upon this subject *The Memorial of John W. Hoyt, in regard to a National University*. Washington, 1892.

At the close of the Revolutionary War several of the original states claimed that their borders extended to the Mississippi River. To the west lay a vast extent of country the possession of which had been determined by the fortunes of the war. Virginia, New York, Connecticut, Massachusetts, and even Georgia, claimed this country either as included in their original charters or as acquired by treaty with the Indians or by exploration. The national government, so far as it existed at this time, possessed no territory. All the land was included within the borders of states. It was proposed by leading statesmen that these nebulous and conflicting claims should be surrendered to the general government on condition that the lands thus ceded should be used to pay the debt of the war, and for the general good. Between the years 1781 and 1792, all the states which laid claim to this land ceded their rights to the nation. On June 16, 1783, two hundred and eighty-eight officers petitioned Congress for a grant of land for their services. Of these officers two hundred and thirty-one were from New England and the Eastern States. This petition of the officers of the Revolution failed. Three years later representatives from the officers met in Boston, and on March 4, 1786, the Ohio Company was formed, the object of which was to purchase from the national government a million and a half acres of land in what was later Eastern Ohio.

A plan for a state to be established between the Ohio River and Lake Erie was organized in New England, to be settled by army veterans and their families. Petitions of soldiers in favor of the plan were forwarded to Congress through General Washington. It was proposed that after the payment of soldiers for their services in the war, the public lands remaining should be devoted to public purposes, among which

was specified "establishing schools and academies." A proposition from the state of Virginia came before Congress (1783) to devote one-tenth of the income of the territory to national interests, as the erecting of fortresses, the equipment of a navy, and the "founding of seminaries of learning." This act did not pass.

On May 20, 1785, the Congress of the Confederation passed an act for "locating and disposing of the lands in the Western Territory." This act contained the provision: "There shall be reserved the central section of every township for the maintenance of public schools, and the section immediately adjoining for the support of religion, the profits arising therefrom in both instances to be applied forever according to the will of the majority of male residents of full age within the same." To Colonel Timothy Pickering of Massachusetts, "if to any one man, is to be attributed the suggestion which led to the first educational land grant." To the Hon. Rufus King the immediate merit of embodying this principle in the statute is due. "This reservation marks the beginning of the policy which, uniformly observed since then, has set aside one thirty-sixth of the land in each new state for the maintenance of public schools." The use of this national land had, however, been separately advocated by leading statesmen of the time.

Generals Putnam, Tupper, and Parsons were active in this scheme for settling the new territory, but its efficient agent before Congress was the Rev. Manasseh Cutler of Hamilton, Mass., a chaplain in the late war, a man of legal training, and later a member of Congress from Massachusetts, a scholar whose scientific enthusiasm and attainments in astronomy and botany made him the friend and correspondent of the most eminent scholars of the world. Under the influence of Dr. Manasseh Cutler the "Ordinance of 1787 for

the government of the Northwest Territory" was passed. It contained the memorable words, "that religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged." The committee which reported this act recommended that one section in each township should be reserved for common schools, one for the support of religion, and four townships for the support of a university. This was subsequently modified so that two townships should be appropriated "for a literary institution, to be applied to the intended object by the legislature." Dr. Cutler's friends and associates would not embark in this enterprise unless these principles were unalterably fixed. They demanded to know on what foundations their social organization should rest, and hence the organic law had to be first settled. By this action the principle of national aid to education was established.

The sale of the great tract of five million acres to the Ohio Company was closely associated with the passage of the "Ordinance of 1787," and determined in part its form. This act, so momentous in its sequences, rested upon a compact between each of the original states and the people in the proposed territory, and was to remain unalterable unless by mutual consent. It contained the great principles of civil and religious liberty, and of the rights of conscience. By it an orderly and representative government was secured to all the people of the Great Northwest. Slavery was forever prohibited and public education was provided. The most eminent jurists have expressed their admiration for this enactment. Daniel Webster said: "We are accustomed to praise the lawgivers of antiquity, . . . but I doubt whether one single law of any lawgiver, ancient or modern, has pro-

duced effects of more distinct, marked, and lasting character than the Ordinance of 1787. . . . It set forth and declared it to be a high and binding duty of government to support schools and advance the means of education. We see its consequences at this moment, and we shall never cease to see them perhaps while the Ohio flows."¹ Judge Story, in his work on the Constitution, said: This Ordinance "has ever since constituted in most respects the model of all our territorial governments, and is equally remarkable for the brevity and exactness of its text and for its masterly display of the fundamental principles of civil and religious liberty. American legislation has never achieved anything more admirable, as an internal government, than this comprehensive scheme. Its provisions concerning the distribution of property, the principles of civil and religious liberty, which it laid at the foundation of the communities established under its sway, and the efficient and civil organization by which it created the first machinery of civil society are worthy of all the praise that has ever attended it."²

Chief-Justice Chase said: "Never, probably, in the history of the world, did a measure of legislation so accurately fulfill, and yet so mightily exceed, the anticipations of the legislators."³

"It approaches as nearly to absolute perfection as anything to be found in the legislation of mankind; for after the experience of fifty years it would perhaps be impossible to alter without marring it."⁴

The draft of this great charter was made by Nathan Dane of Massachusetts, but to Dr. Manasseh Cutler is due the distinct incorporation of the principle of the support of education and the establishment of a uni-

¹ First and Second Speech in reply to Foote's Resolutions.

² Works, III., 363, 433; *Hist. of the Const.*, I., 307.

³ Introduction to the *Statutes of Ohio*.

⁴ Judge Timothy Walker, *Address at Marietta*.

versity, and probably the provision against slavery. It is even possible that his was the master mind which suggested the form of the whole, based as it is largely upon the constitution and judicial system of Massachusetts of 1780, and containing in addition the principle of the inviolability of contracts, which six weeks later was incorporated in the draft of the Constitution of the United States. Certainly we know that the passage of this famous ordinance, as well as the sale of five and a half million acres of land by Congress, was due to his able advocacy and conquering personality.

One of the first acts of Congress after the adoption of the Constitution was to affirm solemnly the binding force of this ordinance, and to adapt its provisions to those of the new Constitution. Following the precedent here set, the states which constituted a part of the Northwest Territory, which were admitted later, made provision for the support of popular education and the endowment of colleges by appropriations of land or a certain percentage of the income from the sales of public lands. Three to five per cent. of the proceeds of the sales of public lands within their borders had also been granted to the states by the national government before the national grant of 1862, which had in many cases been devoted to education. Since the year 1800, every state admitted to the Union, save Maine and West Virginia, which were taken from older states, and Texas, which was acquired from Mexico, have received two or more townships of land for the purpose of founding a university. The proceeds of the sale of saline and swamp lands, and grants of public lands to the states for internal improvements, have in some cases been devoted to education. Three million five hundred thousand acres have thus been set apart for higher education. Special grants have been

made to a few states, as one to Tennessee in 1806, and minor appropriations for specific purposes, to asylums, academies, and missionary societies.

The vast agricultural interests of the West began a little later to demand the recognition of agricultural and industrial education by the national government. The state of Michigan asked Congress in 1850 for a grant of 350,000 acres of land for the support of agricultural schools. The question of a national grant in aid of scientific and practical agriculture had been forced upon Congress by numerous petitions, which had been presented both by scientific bodies and even by state legislatures. In the year 1854 the legislature of Illinois presented a memorial to Congress requesting such a grant of the public lands, and at the session of Congress of 1857 a similar memorial was presented from the State Board of Agriculture of the state of New York asking a grant of land in aid of the agricultural colleges of the several states. From this time forward memorials poured in upon Congress in constant succession asking for appropriations for such schools.

The plan for an industrial university for the state of Illinois was advocated with great earnestness and ability by Professor J. B. Turner of Jacksonville, first in an address before the Teachers' Association at Pittsfield, in 1850, and later in an address before the Farmers' Convention held at Granville, November 18, 1851, and in the *Millennium of Labor* (1853). Mr. Cornell was in active correspondence with Mr. Turner upon the form and scope of such institutions.

CHAPTER II

THE NATIONAL LAND GRANT AND LATER CONGRESSIONAL ACTS

THE Hon. Justin S. Morrill of Vermont took his seat in Congress in 1855 as a member of the House from Vermont. His attention was soon called to the numerous appropriations of public lands for railroads and local interests, by which our vast national domain was being gradually sacrificed without contributing to any permanent work of general benefit. He was impressed with the fact that this splendid possession might, by an intelligent and comprehensive plan, be so appropriated as to make it a source of perpetual blessing, and thus place resources in the hands of the government such as no previous nation had enjoyed. Mr. Morrill was from New England, where education was regarded as essential to good government and upright citizenship; he was also from a state whose chief interest was in its agricultural resources, but whose wealth was gradually diminishing with the development of more fertile regions. He thus describes the reasons which led to the introduction of the bill, and his part in its passage:

“ First, that large grants of land were made for educational as well as for other purposes, and that the older states were obtaining little special benefit from the large common property of the public domain.

“ Second, that the average product of wheat crops per acre in the Northern and Eastern States was rapidly diminishing, and that these states would soon be dependent for bread upon our Northwestern States, while

in England the soil, maintaining its ancient fertility under more scientific culture, its wheat crop per acre appeared undiminished. Some institutions of a high grade for instruction in agriculture and the mechanic arts, I know, had been established in Europe, and that something of the kind here was greatly to be desired.

“ Third, that the liberal education offered in 1858 at our colleges appeared almost exclusively for the instruction of the professional classes—that is to say, for ministers, lawyers, and doctors only,—while obviously the greatest number of our people, or all those engaged in productive and industrial employments, were unprovided for, though hungering for some appropriate higher education.

“ Existing colleges then had more faith in discipline than in usefulness, and surrendered little time to the teaching of the practical sciences. It struck me, however, that these would do the greatest good to the greatest number and open a larger field to a liberal education. With these views, my first bill was introduced and passed both Houses in 1858. Instruction in the sciences, agriculture, and the mechanic arts was made to lead, but without excluding the classics. It was to be the instruction of a college. I do not remember of any assistance in framing my bill prior to its introduction.

“ One slight amendment only was made, and that by the Senate, where the bill was earnestly supported by Senators Wade, Crittenden, and Pearce. After its introduction Colonel Wilder of Massachusetts, president of the National Agricultural Society, and Mr. Brown, president of the People's College, New York, and others, worked to encourage members to vote for the bill. My own speech was about the only one in favor, while there was some outspoken opposition and a report by Cobb of Alabama against it. The bill

was vetoed by Buchanan, though favoring a measure that would provide for a professorship of agriculture for a college in each state. Mr. Sickles, a personal friend of Buchanan, then, as now, a member of the House, having heard of a coming veto, left the House in haste to see and persuade the President to approve the bill. Upon his return he told me that he was too late, and that Senator Slidell of Louisiana had got the ear of the President. Of course I patiently waited for a change of administration, and in 1862 again pushed the bill, but for a larger endowment of lands. Senators Harlan, Pomeroy, and Wade cared for the bill in the Senate. Most of the state legislatures had passed resolutions in its favor. There never was a doubt about the approval of Lincoln. I do not think he had any relations with Buchanan, who soon left for Pennsylvania.

“ The value of the land granted to colleges was largely diminished by the great amount of bounty land and railroad land grants competing for a market at the same time. Only one college had a Cornell to husband its resources.

“ For the proper equipment of the Land Grant Colleges the original endowment was soon found to be too small, and for many years various bills were introduced by me to obtain a supplementary grant.

“ Success finally crowned these efforts in 1890. Professor Atherton of Rutgers College, now president of Pennsylvania Agricultural College, and Major Alvord of Maryland Agricultural College, rendered valuable aid in all of these supplementary bills.”

Recognizing the education of the people as the noblest function of government, Mr. Morrill drew up independently a bill “ Donating public lands to the several states and territories which might provide colleges for the benefit of agriculture and the mechanic

arts," which he introduced in the House of Representatives December 14, 1857, and asked that it be referred to the Committee on Agriculture, of which he was a member. An opposition was immediately developed to the reference proposed, and it was moved that the bill be referred to the Committee on Public Lands, which on the following day was done.

Mr. Morrill, in beginning his speech in behalf of the bill, stated that no measure for years had received so much attention in various parts of the country as this, so far as can be proved by petitions which have been received here from the various states, north and south, from county societies, and from individuals. He compared the efforts of the government to promote commerce, railroads, literary labor through the copyright, and to benefit mechanics by the patent system, and education through munificent grants, with the little done for agriculture. We are behind European countries in this regard, while far ahead of them in every other. He claimed that the prosperity of a nation depended, first, upon the division of the land into small parcels; and secondly, upon the education of the proprietors of the soil. Our agriculturists are, as a whole, seeking to extend their boundaries instead of promoting a higher cultivation of the soil. He showed by statistics of agricultural products that crops were decreasing in the East and South, and that agriculture as pursued was exhausting the soil. "Foreign states support a population vastly larger per square mile than our own. Here we rob the land, and then the owner sells his land and flies to fresh fields to repeat the spoliation. The wave would some day be stayed by the Rocky Mountains, but shall we not prove unworthy of our patrimony if we run over the whole before we learn to manage a part? The nation that tills the soil so as to leave it worse than it found it is doomed to

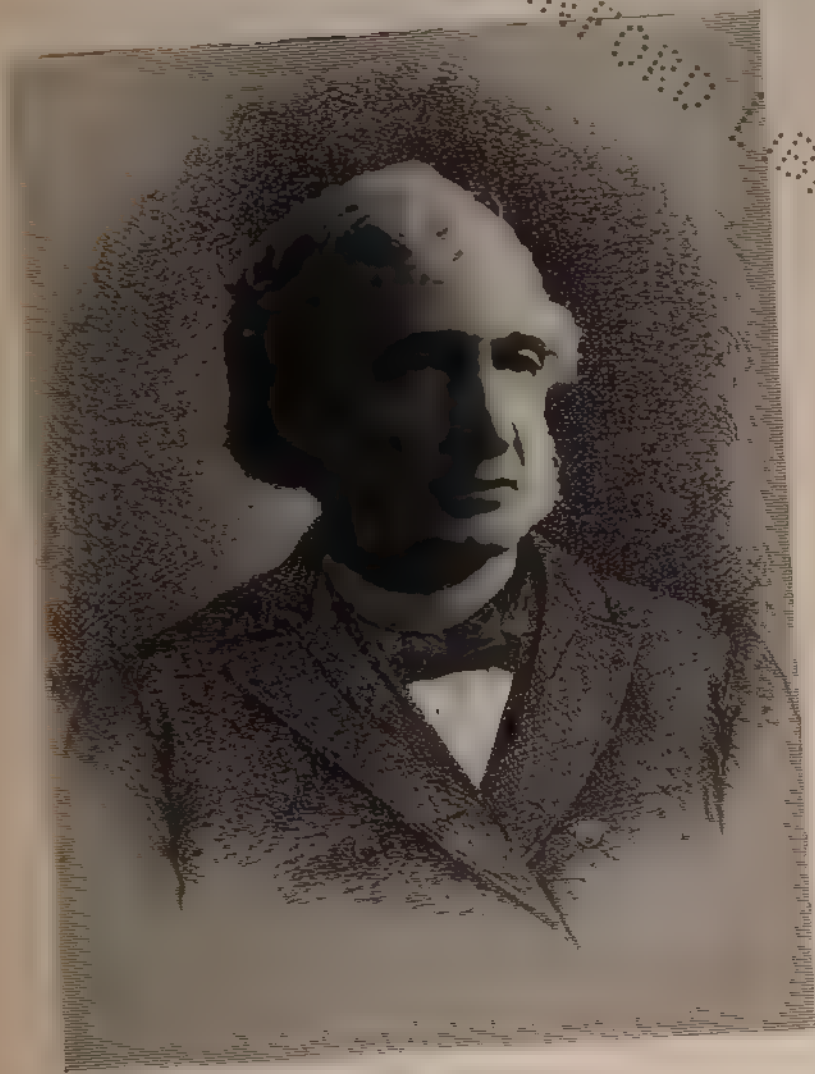
decay and degradation. Agriculture undoubtedly demands our first care. Our public lands are no longer pledged to pay the national debt. Who will be wronged by this bill? What better thing shall be done with our national domain? Since 1850 grants of land amounting to 25,403,993 acres have been made to ten states and one territory to aid more than fifty railroads. As prudent proprietors we should do that which would not only tend to raise the value of the land, but make agricultural labor more profitable and more desirable. Up to June 30, 1857, we had donated ungrudgingly to different states and territories 67,736,572 acres of land for schools and universities. If this purpose be a noble one, as applied to a territory sparsely settled, it is certainly no less noble in states thickly populated." He defended the constitutionality of the bill and claimed that Congress had a plain and absolute right to dispose of the public lands at its discretion. "Some statesmen have denounced our land system as a prolific source of corruption, but what corruption can flow from agricultural colleges? The persuasive arguments of precedents, the example of our worthiest rivals in Europe, the rejuvenation of wornout lands which bring forth taxes only, the petitions of farmers everywhere yearning for a more excellent way, philanthropy supported by our own highest interests, all these considerations impel us for once to do something for agriculture worthy of its national importance."

Mr. Morrill then introduced an amended bill. A parliamentary struggle ensued, in which it was sought to lay the bill on the table, and in which Mr. Cobb opposed its passage upon the ground of unconstitutionality. Mr. Cobb sought also to show that the effect of the bill would be to give some states an advantage over others, under the existing ratio of representation. He

also objected to the exclusion of the territories from the benefits of the bill, and held that the grants to railroads increased the value of the public lands; but in this case the government would receive no equivalent.

On April 15, 1858, Mr. W. R. W. Cobb of Georgia reported back the bill, recommending that it do not pass. A minority report, signed by two members of the committee, Messrs. D. S. Walbridge of Michigan and Henry Bennett of New York, was also presented. The reasons upon which the majority of the committee relied for the rejection of the bill rested mainly upon the limitation of the powers of the Federal government by the Constitution. "The states had reserved to themselves all authority to act in relation to their domestic affairs, and these principles established the only solid foundation for the perpetuation of the Federal Union. Such is the symmetry of our government, that its very existence depends upon its severe adherence to the limitation of its duties. If the general government possessed the power to make grants for local purposes, without a consideration within the states, its action would have no limitation but such as policy or necessity might impose. Every local object for which local provision is now made would press for support upon the general government, and would create demands upon it beyond its power to meet, and of necessity it would be driven into the policy which would increase its means. As its expenditures are increased the revenue must be enlarged, and the general government, by the adoption of the policy, would levy taxes upon the people of the Union for the sake of the local interests of the states. . . . Patronage would be fatal to the independence of the states; with patronage comes the power to control, as consequence follows upon cause. If the principle be admitted, what shall

limit its application? The committee have failed to perceive how they could be justified in recommending a grant from the general government in support of agricultural schools and in refusing one for any other purpose equally meritorious. The means of the general government are taken from the people. If you take it from the public lands, you give it money in the stead; if you destroy its revenue from that source, you must increase it in some other. The appropriation asked for is in lands; but your committee can discover in this regard no difference between an appropriation in lands or one in money; the effect is precisely the same in both cases. If the revenue from the public lands is destroyed, the deficiency must be met by taxes upon the people. The public domain belongs to all the people of the United States; their interest in it is common, and the government is but the trustee for the common benefit, limited in its actions over it to those powers conferred by the Constitution. It is a part of the public funds, and can be devoted to no purpose forbidden to the money of the Federal government. . . . As a landholder, the government may legitimately bear a share of the burdens imposed to create an improvement which shall enhance the value of its domain, and may contribute to that end, yet its aid must be limited within the extent which does not require taxation to effect it. It may, as a matter of power or right, contribute portions of the public lands to improve the value of the remainder, but even in this sound policy its duties toward the general welfare will limit it to a healthy and reasonable extent. The donation of section sixteen for the support of schools was an inducement to purchasers and enhanced the value of the adjacent lands, the sale of which indemnified the government for the donation which it made. So, too, the donation of the salines. . . . The grants to the new



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states upon their admission into the Union were upon conditions which more than indemnified the government. If the prayers of the petitioners were granted, prodigious quantities of land would be thrown upon the market by competing venders, which would deprive it of marketable value. The very gratification of their wishes would destroy the object which they have in view. To make the grants would be to render them of but little avail. Congress, without a promise of pecuniary compensation, has no power to grant portions of the public domain, and, if it had, no policy could be more unwise than to grant it for the support of local institutions within the states."

The minority report, to which Mr. Morrill contributed, cited the fact that schools for instruction in scientific and practical agriculture had been established by most of the European governments; that in many countries of Europe the subject of agricultural education is incorporated with the public administration, being often committed to the minister of public domains. Agricultural colleges had been established in various states, in part by private benevolence and in part by legislative act; also that agricultural professorships had been created in many colleges and universities. Of 5,371,876 free male inhabitants of the United States in 1850, nearly one-half, or 2,389,013, were returned as farmers and planters, while in the professions of law, medicine, and divinity there were but 94,515 men employed. To educate these men for the learned professions there were 234 colleges, endowed with many millions of dollars, and two million dollars are actually expended every year in the education of 27,000 students. The main wealth of the country is in its agricultural products, which far exceed in value its foreign commerce. If a grant of land to aid in the construction of a railroad may be made for the benefit of all

the states, by which the value and sale of the public lands is promoted, there is equal warrant for giving millions of acres to soldiers who have fought our battles.

The measure under consideration is in no sense a donation to the states; it will relieve them from no taxation, but will impose new duties and further burdens. It merely makes the states trustees for certain purposes which they may constitutionally and efficiently discharge. The United States will not part with its title to any lands save upon certain conditions, which are to be of perpetual and binding force. As the United States originally acquired their title to much of the public domain upon the stipulation that it was to be disposed of only for the common benefit of all the states, so it is believed that no grant has ever been made which will prove to be a more strict compliance with the terms than this now proposed, reaching, as it will reach, not only all the states, but a major part of the people of all the states, reaching them, too, in their persons and material interests and reaching them also for the *common benefit* of all the people. That our country needs all the aid likely to flow from a measure of such far-reaching consequences, the united testimony of all our agriculturists in all sections of our country loudly proclaims, and that it will prove wise and practical, the experience in our own and other lands happily already demonstrates. As each state would possess the sole control and management of its proportionate fund, national power could not be held to interfere in local government. The constitutionality of such a law was maintained, and it was held that there was no limit to the uses and purposes to which the public domain may be applied, but by the discretion of Congress; if the proposed grant is for the benefit of all the states, Congress has full power to

make it, and the law-making power alone can judge of that fact.

The bill passed the House on the 22d of April, 1858, by a vote of one hundred and five to one hundred. Upon analyzing this vote, we find that the members from the Southern States, with few exceptions, voted against the measure, while its main support came from the North. Certain members from the Western States also opposed it on the ground that their own states would suffer in growth and in population, and that the purposes of the Homestead Act would be defeated.

On April 22, 1858, the bill was presented in the Senate, and on the following day referred to the Committee on Public Lands. On May 6, 1858, Mr. Stuart of Michigan reported that the committee, after very carefully considering this question, had, in view of the existing circumstances, reported the bill back to the Senate without any recommendations for or against its passage. On May 19 the Senate proceeded to the consideration of the measure, which, however, was strenuously opposed, Mr. Pugh of Ohio saying: "We might as well make a test vote on that bill. It has never been favorably recommended by any committee of either House. Probably it is the largest proposition for the donating of public lands that has ever been made here. We cannot consider it at this time, and I think instead of wasting the precious hours that remain in discussing at great length a question which, if it comes up, will be defeated, we may as well take a test vote on the question of taking up the bill, and I call for the yeas and nays." The bill was taken from the table by a vote of twenty-eight to twenty-four; Senator Yulee of Florida sought to vary the motion so as to lay the bill on the table and thus dispose of it more effectively. Various motions were presented to proceed to the special order, to postpone the special order,

and to take up other measures in place of the Land Grant Act for colleges. Mr. Stuart said: "I only desire to say that the friends of this measure do not intend to discuss it. It is a measure which explains itself. The reading of the bill prepares every senator to vote upon it. . . . I wish to protest against the authority of my noble friend from Alabama [Mr. Clay] as well as his historical statement [that this was a bill which the Democratic party of this country had been committed against for thirty years past]. I deny his authority to make party questions, and I deny his historical statement that this is a party question or has ever been made so. This is simply a proposition to grant less than six million acres, whereas it is but a short time,—in 1855,—since we passed the law under which there have been granted sixty million acres; that was done by a Democratic majority and approved by a Democratic president." Mr. Mason of Virginia said: "The Senator would be mistaken if he expected the bill to pass without debate. It may be the policy of the senator and those who think with him to let the bill pass as smoothly as may be, but as far as I understand it, it is presenting a new policy to the country altogether, being a direct appropriation from the treasury for encouragement of schools of agriculture. . . . I am not aware that it has been known so far to the legislatures of the country to make these general appropriations through all the states. I shall deem it my duty, for one, to expose its character, as I look at it, fully to the people whom I represent, and I presume that the disposition of other senators is to do the same thing." The Senate refused to consider the bill further. On the first day of the second session of the Thirty-fifth Congress, December 6, 1858, Mr. Stuart, who had charge of the bill in the Senate, gave notice that as soon as the Senate was full, he should ask for

the consideration of the bill. On December 15 Mr. Stuart called up the bill. An attempt was made to postpone its consideration on account of the sickness or absence of members who were opposed to it. Upon the question of considering the bill the Senate was equally divided, the vice-president, Mr. Breckenridge, voted *no*, and the consideration was postponed. On December 16 the bill was again called up and made a special order for the following week. Upon the day designated, the consideration of the measure was again postponed. On February 1 Senator Wade of Ohio moved to postpone all prior orders and to take up this bill, speaking with great energy in its favor. Among other things, he said: "This bill passed the House toward the close of last session. It came here so late that those who were opposed to it found it would be easy to talk it to death, and it will share the same fate now unless its friends support the motion to take it up in preference to other bills. Many senators here are instructed by their states to use their influence to procure the passage of the bill; I am one among that number." He also argued that it was time that something of this nature should be done by Congress for the benefit of agriculture.

The bill, as originally presented, provided that twenty thousand acres of land should be granted to each state, for each senator and representative in Congress to which the states were then respectively entitled, making a total grant of 5,929,000 acres. It was sought to amend the bill by making the grant to the several states and territories in the compound ratio of the geographical area and the representation of said states and territories in the Senate and House of Representatives, after the apportionment under the census of 1860, provided that said appropriation be made after first allotting to each state and territory fifty

thousand acres. Mr. Harlan of Iowa said: "The census of 1850 shows that at that time there were over three millions of the people of the United States engaged in agricultural pursuits. Where is their representation on this floor? *Non est*. They are not here, only as they are represented by professional men." Various amendments were offered, some designed to make the quantity of land granted by the bill proportionate to the area of tillable lands in the state. An effort was also made to introduce a provision in the act as finally passed, that in no case shall any state to which land scrip may thus be issued be allowed to locate the same within the limits of any other state; but their assignees may thus locate said land scrip upon any of the appropriated lands of the United States, subject to public entry.

Senator Jefferson Davis, later President of the Confederate States, reviewed the history of the acquisition of the public lands by the general government, and opposed the measure on the ground that the power to "dispose" of the lands did not imply that they could be given away. Previous grants of the public lands had been made to increase the value of the property and to promote the revenue of the United States. "So far as grants of land have been made to construct railroads, merely on the general theory that railroads were a good thing, the Federal government has violated its trust and exceeded the powers conferred upon it. . . . Where a grant has been made of a certain portion of land to increase the value of the residue and bring it into cultivation, . . . it rests on a principle such as a prudent proprietor would apply to the conduct of his own affairs. Thus far it is defensible; no further. The land grants to the new states for education rest on the same general principle. The new states, sovereigns like the old, admitted to be equal, before

taking both the eminent and useful domain, entered into a contract with the other states, that they would relieve from taxation the land within their borders while owned by the general government. This is the consideration for which land grants have been made to the new states; and a high price they have paid for all that has been granted for educational purposes.”

Mr. Davis’s views are not confirmed by the terms of the Ordinance of 1787. They are of interest now as those of a strict constructionist of the Constitution of that time, and in virtue of certain views of governmental and state rights which he later advocated.

After further debate the vote was taken, with the result that twenty-five yeas and twenty-two nays were cast, being a majority of three for the measure. On the 16th of February a message was received from the House that it had concurred in the Senate amendments to the bill.

In the decision of this question, certain senators conscientiously maintained views based upon traditional interpretations of the Constitution; others, who opposed the measure, joined with the former through party affiliations, and certain senators from the South acted in support of the measure contrary to the convictions of their constituents. Senator Morrill gives the following additional incident in the history of the measure: “It was reported that President Buchanan would veto the measure on account of its unconstitutionality. When the bill had been in the hands of President Buchanan for some days, General Sickles of the House told me that there was some danger of the veto of the bill, and requested me to give him a copy of the speech wherein I had shown that Buchanan, when a senator, had voted for an appropriation for a school for deaf mutes in Kentucky. He thought that this vote would preclude him from urging

any constitutional objections against the agricultural college bill. He jumped on a horse and rode up to the President's, but soon came back, telling me that he was too late, that Senator Slidell of Louisiana had got the ear of the President, and the bill would be vetoed." Among those who supported this law most actively in the House during its first passage were Representatives Morrill, Walbridge, Cochrane, and others, and in the Senate, Senators Wade, Stuart, and Collamer.

On February 24, 1859, President Buchanan sent a special message to the House of Representatives, vetoing this act. After stating the provisions of the bill and the range of its application, he proceeded to set forth the objections to the measure, which he deemed to be both inexpedient and unconstitutional. His first objection was the great difficulty of raising sufficient revenue to sustain the expenses of the government. Should this bill become a law, the treasury would be deprived of the whole or nearly the whole of the income from the sale of public lands, which was estimated at five million dollars for the next fiscal year. The minimum price of government lands was one dollar and twenty-five cents, but the value of such lands had been reduced to eighty-five cents by the issue of bounty land-warrants to old soldiers. Of the lands granted by these warrants, there were outstanding and unlocated nearly twelve million acres. This had reduced the current sales of the government lands and diminished the revenue from this source. If, in addition, thirty-three states should enter the market with their land scrip, the price would be reduced far below even eighty-five cents per acre, and as much to the prejudice of the old soldiers, who had not already parted with their warrants, as to that of the government. With this issue of additional land scrip, there would be a glut in the market, so that the

government could sell few lands at the established value, and the price of bounty land-warrants and scrip would be reduced to one-half the sum fixed by law for government sales. [This anticipation was afterwards realized in the sale of the land scrip issued to the various colleges.] Under these circumstances, the government would lose this source of revenue, as the states would sell their land scrip at any price that it would bring. The effect upon the treasury would be the same as if a tax were imposed to create a loan to endow these state colleges. The injurious effect that would be produced on the relations between the Federal and state governments, by a grant of Congress to the separate states, was argued by a reasoning almost similar to that presented by the majority of the committee of the House of Representatives in reporting originally against the measure. The third argument, that the bill, if it should become a law, would operate greatly to the injury of the new states, was based upon the fear that wealthy individuals would acquire large tracts of the public lands and hold them for speculative purposes. The low price, to which the land scrip would probably be reduced, would tempt speculators to buy it in large amounts and locate it on the best lands belonging to the government. The consequence would be that the men who desired to cultivate the soil would be compelled to purchase these very lands at rates much higher than the price at which they could be obtained from the government. Fourthly, he doubts whether this bill will contribute to the advancement of agriculture and the mechanic arts, objects whose dignity and value can not be too highly appreciated. The Federal government will have no constitutional power to follow up the donation to the states, and compel the application of the fund to the intended objects. As donors, we shall possess no control over our own gift

after it shall have passed from our hands. If the state legislatures fail to execute faithfully the trust in the manner prescribed by the law, the Federal government will have no power to compel the execution of the trust. Fifthly, the bill will injuriously interfere with the existing colleges in the different states, in many of which agriculture is taught as a science, and the effect of the creation of an indefinite number of rival colleges sustained by the endowment of the Federal government will not be difficult to determine. He believed that it would be impossible to sustain the colleges proposed without the provision that scientific and classical studies shall not be excluded from them; for no father would incur the expense of sending his son to one of these institutions for the sole purpose of making him a scientific farmer or mechanic. [The bill itself negatives this idea, and declares that its object is to promote *the liberal and practical education* of the industrial classes in the several pursuits and professions of life.] By far the larger portion of the veto message is devoted to the question of the constitutional power of Congress to make the donation of public lands to the different states of the Union, to provide colleges for the purpose of educating the people of those states. "The general proposition is undeniable that Congress does not possess the power to appropriate money in the treasury raised by taxes on the people of the United States for the purpose of educating the people of the respective states. It will not be pretended that any such power is to be found among the specific powers granted to Congress, nor that 'it is necessary and proper for carrying into execution' any one of these powers. Should Congress exercise such a power, this would be to break down the barriers which have been so carefully constructed in the Constitution, to separate Federal from state authority. We should then

not only 'lay and collect taxes, duties, imposts, and excises' for Federal purposes, but for every state purpose which Congress might deem expedient or useful. The language of the second clause of the third section of the fourth article of the Constitution, which declares that Congress shall have power to dispose of and make all needful rules and regulations respecting the territories or other property belonging to the United States, does not by a fair interpretation of the words 'dispose of' in this clause bestow the power to make a gift of public lands to the states for purposes of education. Congress is a trustee under the Constitution for the people of the United States, and, therefore, has no authority to dispose of the funds entrusted to its care, as gifts." A decision of the Supreme Court, in which an opinion was rendered by Chief-Justice Taney, was quoted, who says in reference to this clause of the Constitution: "It begins its enumeration of powers by that of 'disposing,' in other words, making sale of the lands or raising money from them, which, as we have already said, was the main object of the cession (from the states) and which is the first thing provided for in the article." In the case of states and territories, such as Louisiana and Florida, which were paid for out of the public treasury from the money raised by taxation, Congress had no power to appropriate the money with which these lands were purchased to other purposes, and it was equally clear that its power over the lands was equally limited. "The mere conversion of money into land could not confer upon Congress any power over the disposition of land, which they had not possessed over money." If it could, then a trustee, by changing the character of the fund entrusted to his care for special objects, from money into land, might give the land away, or devote it to any purpose he thought proper, however foreign to the trust. Grants

of lands by the national government to new states for the use of schools as well as for a state university, were defended on the ground that the United States is a great land proprietor; and from the very nature of this relation, it is both the right and the duty of Congress as their trustee, to manage these lands as any other prudent proprietor would manage them, for his own best advantage. Such a grant became an inducement to settlers to purchase the land, with the assurance that their children would have the means of education. The gift of lands for educational purposes enhanced their value and is, therefore, justifiable.

This veto of the land act establishing national colleges put an end to any further hopes of its passage during Mr. Buchanan's administration. If Congress occupied the relation of a legal trustee to these lands, it was bound by the legal limitations of such a trustee, instead of possessing the power to interpret intelligently under the Constitution what was the normal exercise of its powers. The law-making power was, by this argument, made subject to a power created by it.

Mr. Morrill, in replying to the President's veto, claimed that there was no possibility of a lack of harmony between the state and Federal authorities on account of any provision in the bill, which left the arrangement and control of institutions founded under the act wholly to the state. On the question of passing the bill over the veto, there were 105 yeas and 96 nays, not the requisite two-thirds to enable the act to become a law.

Mr. Morrill was not, however, discouraged, and two years later, upon the accession of a new administration, he gave notice, on December 8, 1861, that he would introduce a bill donating public lands for the support of colleges in the various states. The bill was formally introduced on December 16, read twice, and re-

ferred to the Committee on Public Lands. Here it was kept until December 20, 1862, when the chairman of the committee reported back the bill with a recommendation that it should not pass. This adverse action in the House having been anticipated, the same measure was introduced in the Senate by the Hon. Benjamin Wade of Ohio on May 2, 1862, where it was referred to the Committee on Public Lands and ordered to be printed. On the 16th of May Senator Harlan reported back the bill as amended by the committee with a favorable recommendation. On the 19th of May the bill was formally considered in committee of the whole. It was stated to be essentially the same as that passed by both Houses of Congress two years before, save that the appropriation granted 30,000 acres of land to each state for each representative or senator in Congress in place of 20,000 acres of land, as provided in the original bill. The hostility of certain western senators, who feared that their states would be affected disadvantageously by the passage of the bill, was the principal occasion for opposition at this time. It should be borne in mind that representatives from the South were not at this time members of the National Congress in attendance. Some senators, fearing that the passage of the bill would exhaust all the valuable lands in their own states, desired to limit the grant to government lands in the territories. The popular favor with which this measure was regarded throughout the North had constantly increased within the two years since Mr. Buchanan's veto. Mr. Wade stated that "a great many states, and I believe most of our free states, have passed resolutions in their legislatures instructing their senators to go for the bill." Senator Harlan, from Iowa, stated that he represented a state that would be adversely affected by the bill, but that he should vote for it for two reasons: first, be-

cause the legislature of his state had instructed him to do so; and secondly, because "I do not believe the state will be seriously damaged should the bill become a law, and justice to the old states seems to require it." The Committee on Public Lands concluded, in view of all the facts, which exhibited a policy of large liberality towards the new states, that it would not be unreasonable for the old states to insist on such a disposition of a small part of the public land as would result in benefit to them, especially as they had by an almost unanimous vote agreed to the passage of the Homestead Bill. ". . . . This bill proposes to grant to the states less than ten million acres. We now have of surveyed and unsold lands over one hundred and thirty-four million acres. At the same time there is a total of unsold and unappropriated lands of 1,046,280,093 acres. It is, therefore, a trivial gift of this vast national estate to bestow upon education." Mr. Wright of Indiana remarked: "If this fund is to be raised in this way I would much rather devote it to the females of the land. Do not be startled, gentlemen; it is so. Look at your half-million of men in the army with neglected daughters and sisters to be raised and educated."

Another argument by Senator Harlan, the chairman of the Committee on Public Lands, is worthy of notice. "This body is a body of lawyers. Heretofore appropriations of lands have been made for such universities. The proceeds of the sales of these lands have usually gone to educate the children of professional men. Here, for the first time I believe in the history of the Senate, a proposition is made to make an appropriation of lands for the education of the children of the agriculturalists of the nation, and it meets very strenuous opposition from a body of lawyers. If this Senate were composed of agriculturists



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chiefly, they would have provided first for an agricultural college, and probably afterwards for a college in which the sons of lawyers, physicians, and other professional men could be educated. I do not believe that if the proposition were submitted to a vote of the people of the country you could array one-fifteenth of the voters against it."

Various amendments were submitted, which did not change the essential features of the bill, limiting in one case the amount of land that might be appropriated in any single state to one million dollars. A provision that the act should not take effect until July 1, 1864, was lost. It was provided that whenever there are public lands in a state, the quantity to which said state shall be entitled, shall be selected from such lands. An amendment granting a sum of money from the proceeds hereafter derived from the sale of the public lands, equal to \$30,000 for each senator and representative in Congress, to which the states are respectively entitled, was lost.

The passage of this amendment would have left the value of the public lands undisturbed, but would have limited the large returns from the careful administration of the fund and the sale of the scrip, and made impossible the large sum which Cornell University and the University of California have realized. The bill finally passed on June 11, with a vote of thirty-two in its favor to seven against, and was then sent to the House for concurrence. On July 17, after various dilatory motions to again refer the bill to the Committee on Public Lands had been voted down, the bill passed by a vote of ninety to twenty-five, was signed by the Speaker on July 1, and received the signature of the President on the same day. Both Abraham Lincoln and Stephen A. Douglas had promised before the election, at the request of J. B. Turner, to sign, in

case of election to the presidency, the bill which President Buchanan had vetoed.

During most of the time in which this bill was under debate, Dr. Amos Brown was in Washington and active in influencing members of Congress in its favor. Some of the amendments to its provisions in the Senate were introduced at his personal suggestion. The Rev. Amos Brown, LL. D., was born in Kensington, N. H., on March 4, 1804. His early boyhood was spent on a farm, and his earliest educational privileges were limited to the advantages afforded by the district schools of New England. He prepared for college in the academy at Hampton, N. H., where his original purpose to study medicine was changed, and he entered Dartmouth College in 1829 with the purpose of becoming a student of theology. His faithful friend and college chum was Clark, later United States Senator from New Hampshire and a warm supporter of the National Land Grant Act. During his academic and collegiate course he supported himself by teaching. After graduating from college, in 1834, he entered Andover Theological Seminary. His course in the theological seminary was interrupted by an absence of one year, in which he acted as the principal of the academy in Fryeburg, Me. After leaving Andover, he became principal of the Gorham Academy and Teachers' Seminary, where he remained for twelve years. Mr. Brown was an educator of great ability and power. He gathered the ablest teachers about him, and was one of the earliest advocates of co-education. His ability as an organizer was of a high order, and both as a disciplinarian and a teacher he exerted a powerful influence upon those whom he trained. His personal instruction was mainly in mental science, with which he discussed theories of instruction and the principles of intellectual growth. The reputation of

his school was so great that it attracted pupils from other states, and the Hon. Horace Mann, who visited the Gorham Academy in order to study the theories and methods which were employed there, often spoke of Dr. Brown as one of the ablest teachers of New England, saying that he would make the best college president of all whom he knew. Later he resigned his position in order to enter the ministry, for which he had prepared, and became pastor of a Congregational Church in Machias, Me.; but so strong was his passion for his favorite pursuit of teaching, that after three years' service in Machias he assumed charge of the academy in Ovid, N. Y. Here his former success was repeated. The Seneca Collegiate Institute became one of the most prominent schools of this state, and some of the most eminent scholars of the country felt the influence of Dr. Brown's inspiring personality, among them President W. W. Folwell of the University of Minnesota, Professor J. L. Morris of Cornell University, Professor T. L. Lounsbury of Yale, one of our ablest scholars in English literature and known especially for his brilliant studies in Chaucer, also Professor Charles A. Joy of Columbia College, and Professor Willard Rising of the University of California. The Regents pronounced this institution the best organized academy in the state. Mr. Brown instituted public lectures in order to awaken an interest in scientific farming in the agricultural community around, and in this manner his attention was first called to the need of a state agricultural college.

Dr. Brown had been influential in securing a charter for the State Agricultural College and in locating the same in Ovid. He also originated the plan of asking from the state the loan of \$40,000, without interest, from the United States Deposit Fund. His remark-

able ability in influencing men is shown by his success in inducing the legislators to grant this gift to the Agricultural College. Dr. Brown was one of its trustees, but he was not, as was anticipated, made its president. About this time the trustees of the People's College in Havana sought to perfect its organization, and on August 12, 1857, Mr. Brown was elected president of that institution. It is noticeable that, while he shared the plans and purposes of the new college, he desired to give a broader scope to its curriculum; and in his inaugural he stated that its object would be to promote literature, science, arts, and agriculture. Agriculture, and various branches of manufactures and the mechanic arts, were to be systematically studied within the college as a part of its regular course. He was more and more impressed with the importance of practical and scientific education; and, with the conviction that such education must be supported by the national government, an appropriation of public lands naturally suggested itself to his mind as a practical and constitutional method of bestowing such aid.

Professor Brewer of Yale University relates that he was seated one evening (December 14, 1857) in company with Professor J. W. Chickering and Dr. Brown, when the latter, glancing at the *New York Tribune*, exclaimed suddenly: "Mr. Morrill of Vermont has introduced a bill into Congress for just such national aid to agriculture and the mechanic arts as I have always advocated. I must go to Washington immediately and see what I can do to aid the bill." He went on the following day and became the most powerful and influential supporter of the measure. The debt which the country owes to him for promoting the noblest grant for popular education which the world has known may be estimated by the deliberate judg-

ment of the value of his services expressed by those who were most intimately identified with the passage of this measure in Congress. Senator William Pitt Fessenden of Maine wrote: "Mr. Brown, as I believe, was not only father of the bill, but to his persistent, efficient, and untiring efforts its success was mainly due. I have no hesitation in saying that but for him it would have failed, in my judgment, altogether." Senator Morgan of New York stated: "The first man who suggested to me the passage of the bill was yourself; and from my own knowledge the first bill passed, which was vetoed by Mr. Buchanan, would not have had the remotest chance in either house of Congress without your interest, labor, and most efficient efforts." Senator Harris of New York also said: "The agricultural interests of the country are indebted to him more than to anyone, indeed, everyone else, for the passage of the law devoting public lands to agricultural colleges." Senator Clark of New Hampshire wrote: "It might have passed without you, and I cannot say that it would not; but sure I am, no one was so active or efficient as you in removing obstacles to it or securing it friends."

Senator Wade of Ohio, who took charge of the passage of this law in the United States Senate, in speaking of the influence of the People's College in the passage of that law, wrote, in a letter to Senator E. B. Morgan: "Having taken a deep interest in that measure, I ought to be qualified to speak with confidence on the subject, and I do not hesitate to say that, had it not been for the exertions of that institution, I do not believe the measure could have received the sanction of Congress. Great credit is due to the exertions of the Hon. Mr. Morrill of the House for his unwearied labors in its behalf; yet I always believed, and still believe, that had it not been for the able, energetic,

and unwearied exertions of the Rev. Amos Brown, president of the People's College, it would never have become a law. It encountered great opposition in some quarters on account of its supposed antagonism to the Homestead Bill, and much also from the mere indifference of members who did not take interest enough in the measure to give it a thorough investigation—more still from several members from the land states, who feared its passage would conflict with the rapid settlement of their states. All these difficulties, however, were overcome by the intelligent and persevering labors of Mr. Brown, whom I consider really the father of the measure and whose advice I believe entitled to more weight in carrying the law into execution than that of almost any other man."

Professor Brewer, who has been associated with scientific instruction in agriculture for more than a half-century, thus writes of Dr. Brown: "I was his guest, and on the evening of February 22d I talked with him far into the night. His views were so broad, he was so enthusiastic and hopeful, that I thought him not merely optimistic but positively visionary. He was aiming for so great and broad an institution that I thought it visionary to even hope for its realization. I argued with him that he could not expect to build up a Heidelberg in chemistry, a Berlin in philosophy, a Harvard in natural history, a Yale in agricultural chemistry, and something equally brilliant in technology, in the little village of Havana, and with only \$400,000 actually in sight. He thought otherwise. 'Why not? Why not?' he repeated over and over again. The four hundred thousand dollars were to be merely a beginning; he felt that the demands of the times called for such an institution. He described at length the high ideal that should guide in planning such a college, repeating over and over the sentiment

we see expressed on the seal of Cornell University and, I think, in the very language (at least it so struck me when I first saw the seal), that he was striving to build a college where any person could get instruction in any subject." He was undoubtedly visionary, as great dreamers are likely to be, but neither has the country, nor have the colleges which came into being through Mr. Brown's efforts, recognized as yet, fittingly, the debt which they owe to him. Some features of the law as passed were directly due to him. He was active also in securing the land grant for Cornell University from the legislature of New York.

CHAPTER III

THE PRECURSORS OF CORNELL UNIVERSITY: 1. THE PEOPLE'S COLLEGE. 2. THE NEW YORK STATE AGRICULTURAL COLLEGE

IT had been proposed as early as in 1822 to found a college in Ithaca, and in March of that year a request was presented to the Regents by the Genesee Conference of the Methodist Church for a charter. It was stated that six thousand dollars had already been raised for the support of such a college, with which it was the intention to proceed to the erection of buildings in the following spring. At the same time the trustees of the Geneva Academy applied for a charter for a college, on the basis of certain funds already subscribed and land and buildings already erected, and an annual grant promised by the corporation of Trinity Church in New York. As both these colleges were to be erected by religious denominations, the Board of Regents considered what its policy should be toward applications of this kind from various religious organizations. The board had adopted, as early as March 11, 1811, the view that no academy ought to be erected into a college until the state of literature therein was so far advanced and its funds so far enlarged as to render it probable that it would attain the ends and support the character of a college in which all the liberal arts and sciences would be cherished and taught. "The literary character of the state is deeply interested in maintaining the reputation of its seminaries of learning, and to multiply colleges without adequate means to enable them to vie

with other similar institutions in the United States would be to degrade their character and to be giving only another name to an ordinary academy. The establishment of a college is also imposing upon the government the necessity of bestowing upon it a very liberal and expensive patronage, without which it would languish and not maintain a due reputation for usefulness and universal learning; colleges, therefore, are to be cautiously erected, and only when called for by strong public expediency."

The case was now different, for an additional question was involved. The board, however, after mature consideration, held that it had no right to inquire into the religious opinions of the applicants for a charter, and that it might wisely make use of denominational zeal to promote the great educational interests confided to its charge. It was directed, April 10, 1822, that the charter of a college in Ithaca be granted whenever it should be shown within three years that a permanent fund of fifty thousand dollars had been collected for its support. It was, however, found impossible to raise this sum. This impulse, though fruitless in itself, may have led to the foundation of the Ithaca Academy, which was incorporated in the following year, March 24, 1823.

Two colleges preceded the foundation of Cornell University, which exercised an immediate influence upon its history and determined in part the form which it assumed. The one most nearly related to it was the People's College, situated in Havana, N. Y. The foundation of this college was due, pre eminently, to the enthusiasm and labors of one man, Mr. Henry Howard, afterward a resident of Ithaca, and especially to his labors in connection with an organization called the Mechanics' Mutual Protection, which had numerous affiliated societies throughout the state of New York.

This society arose in that unsettled period which followed the panic of 1837. This was the era of the rise of corporations with a maximum of wealth and a minimum of responsibility. A spirit of wild speculation pervaded the country. The public lands, one source of the national revenue, were sold and paid for in depreciated local currency. Banks were even organized whose sole object was to issue money to acquire possession of such lands. The removal of the United States Deposit Fund from the various state banks in which it had been placed, and its distribution among the states, deprived these banks of funds which had furnished their capital, and upon which their prosperity rested. Financial distress followed immediately. Banks throughout the country failed; manufactories were closed and laborers deprived of means of support, or were paid in depreciated currency. The nation seemed on the verge of financial ruin. A wild panic spread throughout the country. Bread riots broke out in the metropolis, and agitators fanned the excitement of the oppressed and suffering people. A special session of Congress was called to take measures to avert national bankruptcy and to relieve popular distress. The relations of labor to capital became subjects of earnest and often excited discussion. At this time a convention of mechanics was called to meet in the city of Buffalo, and an organization was formed called the Mechanics' Mutual Protection (July 13, 1843). Its object was a noble one. It sought to diffuse a more general knowledge of the scientific principles governing mechanics and the arts, and to elevate workmen, by making them independent, and increasing their proficiency in their several callings, by rendering to each other counsel and mutual assistance, which would elevate the life of the mechanic, and protect him from the encroachments of wealth and power,

which might combine against him, and to enable him to secure remunerative wages, and, above all, to awaken a common interest in his profession.

In the winter of 1848 four men met at the house of Mr. Howard, in Lockport, to discuss plans for a technical school, which, if approved, were to be presented to the society of their order in Lockport. These men were Henry Howard, D. H. Burtis, J. P. Murphy, and R. P. Butrick. The Hon. Washington Hunt, at that time comptroller of the state and afterward governor, approved of the plan. The address which Mr. Howard prepared embodied a history of efforts to establish agricultural and technical schools in Europe and in the various states of this country, and also the results of manual-labor schools in Switzerland and other countries of Europe. During the years 1848 and 1849, Mr. Howard, although called a visionary, delivered this address before various associations of the Mutual Protection. The purpose to found such an institution met the views of the most thoughtful members of the local society, and the address was published and distributed among the lodges, "Protections," throughout the state, about seventy in number.

Mr. Horace Greeley, with his large interest in whatever concerned the welfare of humanity, published an editorial in the *Tribune* in June, 1850, warmly advocating the project of founding a state college of practical science; and proposed, first, that the college should embrace instruction in agriculture as well as in mechanics, and that the farmers should be invited to co-operate in founding it; that it should be erected on a square mile of land, which should contain a model farm and nursery; that all students should attend the lectures on mechanical and agricultural subjects, and labor in the field in the brightest and best farming weather, and in the

mechanical department in "sour" and inclement weather. Mr. Greeley believed that an education should not be a gift of charity, but that the future mechanics and artisans of our state would prefer to win it by labor. He proposed that the institution should be founded by a stock company, with a capital of \$200,000, and that each contributor should receive five per cent. interest upon his stock. Subscribers were to have the right to designate a pupil for the university, but the pupil should pay his own expenses. Mr. Greeley thought that the pupil could earn his expenses within fifty dollars the first year; that he could earn his entire expenses the second year; fifty dollars more than his expenses the third, and seventy-five dollars more than his expenses the fourth year; and that he would thus be gradually equipped for work with ample knowledge, by his own efforts.

Mr. Greeley believed that the cost of establishing a complete university would amount to \$100,000, and stated that he knew where \$1,000 of that sum could be obtained. Even supposing that the university should ultimately cost \$200,000, he believed that it could provide board and instruction for 1,000 boys, and that it would earn an interest of five per cent. on the capital; or, in other words, that the labor of each student, apart from the cost of his education, would amount to ten dollars a year. The citizen who subscribed \$1,000 should be entitled to designate one pupil for the university; subscribers of less amounts might associate, and their joint contributions amounting to \$1,000 would authorize them to nominate a pupil.

The labor question was at this time paramount, and the influence of a society like this mechanics' organization was able to exercise a powerful influence in any election.

On August 15, 1851, a company of seventeen men met



THE WESTERN GROUP OF UNIVERSITY BUILDINGS

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in Lockport in the hall of the Mechanics' Mutual Protection, No. 1, and formed an organization to promote a mechanical college. They elected many of the most prominent men of the state as members. Among the names which appear in their records at this time are those of William H. Seward, Martin Van Buren, Sanford E. Church, afterwards chief judge of the state of New York, Erastus Corning, Thurlow Weed, and General James F. Wadsworth. A week later Horace Greeley was elected a member, and from this time his active participation in founding the People's College and his later connection with Cornell University dates.

The first officers of the association were Samuel Wright, president; Joel Cranson, vice-president; Harrison Howard, secretary; James P. Murphy, treasurer. This organization proposed to make its power felt in the choice of candidates for the legislature and state officers. With this purpose, letters were sent to candidates of both parties, inquiring as to their attitude toward the proposed college. Before the election of Washington Hunt as governor, Mr. Howard wrote to him asking him if he would recommend the college to the state in his inaugural message. Mr. Hunt stated that he had already, in a letter to the president of the American Institute, expressed himself in favor of a mechanical school, such as was proposed, and added, "Whether in or out of office, I shall go with you and your friends in establishing such an institution and securing for it, not only a charter, but its full share in any bounty of the state. There is no doubt but that the state will endow an agricultural college. Why should not the mechanical interests be placed on the same footing? My impressions are in favor of one institution divided into two departments, one agricultural, the other mechanical. I made out a statement recently for some friends in New York, showing what

the state had expended for colleges, while nothing had been done for the men who toil in farming or mechanical pursuits. I wish to see these pursuits made intellectual as they should be."

As Governor Hunt was elected by a majority of only 262, it is reasonable to suppose that the mechanical organizations throughout the state (seventy in number), which united to support his candidacy, contributed to determine his election. Similarly, when the Hon. Horatio Seymour was a candidate for governor in 1852, an inquiry was addressed to him as to whether he would favor the new college. While prudently refraining from entering into any engagement which would limit his action thereafter, his attitude was known to be favorable to an enterprise in which so much public interest had been aroused, and he commended the subject of such a college to the favorable consideration of the legislature, in his first message.

An important meeting of the People's College Association, as it was now called, was held in Rochester, Thursday, August 20, 1851, when resolutions were passed setting forth the need of an institution of this kind, and emphasizing the fact that education, to be universal, must be practical; that the security and power of the state rest upon the intelligence and virtue of the people; and that no free community can suffer any portion of its youth to grow up in ignorance without damage to its vital interests and peril to its liberties. Among other resolutions it was

"Resolved: That education, to be universal, must be eminently and thoroughly practical, must be adapted to the wants morally, intellectually, and physically, of individuals in every sphere of life; and that the only rational hope of interest in the great majority for higher education, capable of inducing them to make sacrifices for its acquirements, must be based on its

adaptation to the needs of industry and the uses of everyday life.

“Resolved: That while many departments of professional life would seem to be crowded with aspirants for employment and success therein, there is a manifest and deplorable deficiency of scientific and thoroughly qualified farmers, architects, miners, etc., who should bring the great truths of geology, chemistry, mechanics, etc., to bear intimately and beneficially on all the operations of productive labor, thereby increasing its efficiency and its fruitfulness, and we look to an improved system of collegiate education for the necessary and proper corrective.

“Resolved: That the current system of education is unjust to woman in its higher departments, excluding her from advantages and opportunities which are provided at the common cost for men alone, and we regard the arbitrary separation of the sexes in the pursuit of knowledge as conducive neither to propriety of manners nor purity of heart; and while we recognize the truth that Nature has indicated for the two sexes diverse aptitudes and duties, we insist that woman, like man, shall be left free to acquire such an education and pursue such occupations as her own sense of fitness and propriety shall dictate.”

It was further resolved that, as all are commanded to work, and no one can be sure of passing through life exempt from the physical necessity of laboring with the hands for food, therefore, all should be so trained and educated as to qualify them for usefulness and efficiency in manual labor.

It was provided that the People's College should be subject to the control of no sect or party; that productive labor should be practically honored and inflexibly required of all; that each student should be free to prosecute such studies as might be indicated by his

parents or legal guardians, and to graduate when master of these subjects only. His employment was adapted, as far as practicable, to his tastes, his strength, and his capacities, and it was expected that after the first two years every student would be able to pay his way and prosecute his studies independently, without reliance on extraneous resources. It is noticeable that here the first plea for co-education was presented, and after strenuous debate passed almost unanimously, being vigorously supported by Mr. Greeley, who reported the resolutions. Not all the supporters of the People's College had contemplated co-education as an inseparable part of the plan. On September 8, 1853, the Hon. Washington Hunt, in a letter commenting upon a proposed address, said: "My impression has been that the department (of co-education) does not properly come within the manual-labor system proposed by the People's College. I think that young men and young women should be educated at different institutions. A majority of the trustees think differently, no doubt, and I will not object to having the experiment tried; but I will not (with my present view) profess that I have any faith in its success. At the next meeting of the trustees, which I hope to attend, this subject may be discussed, when I will give my views more fully; meanwhile, if this part of the address is retained, I prefer to have my signature omitted."

In September of this year an industrial congress met in Albany and passed resolutions favoring the proposed university, and recommending that at the State Fair in Rochester the farmers should assemble in mass meeting and discuss this important proposition.

The proposed grand assembly of the farmers of the state in Rochester did not occur; but several men, including Mr. Greeley, the Hon. T. C. Peters, and one or

two others, met at the house of Mr. D. D. T. Moore and discussed the proposed college. Mr. Greeley prepared subsequently a draft of a plan of the college and sent it to Mr. Peters. In correspondence with Mr. Howard and Mr. Peters, the details of this prospectus were agreed upon, and it was published. On September 11 the association of the new college met in Lockport and adopted the recommendation of the Hon. T. C. Peters, editor of the *Wool Grower*, that the farmers should be invited to participate in founding the new college.

A meeting of the society, announced to be held in Buffalo, January 15, 1852, is interesting as showing how the early conception and support of this movement for the People's College rested upon the enthusiasm of a few individuals. When the secretary reached the city to attend this meeting, a great snowstorm had obstructed all communication with the external world. "The few who were interested had previous engagements; one was busy getting the *Commercial* ready for the press, others had oxen to buy or wives to marry." In consequence of this the secretary was the only member present. This laborious but cheerful individual repaired to his hotel, shut himself in his room, elected officers, and passed resolutions submitted by the absent Peters and enlarged by himself. Letters were read from men interested in the progress of the movement, several honorary members elected, a committee appointed to memorialize the legislature for an act of incorporation of the People's College, the shares of which were limited to one dollar each, and an assessment of twenty-five cents was levied upon each member of the Association to meet current expenses. An elaborate report of this meeting was published in the press of the state. At the close of the records the secretary adds: "I hope, when the college is estab-

lished, I shall be excused for this deception, as I believe that if this meeting had been a failure, much delay would have been the result. Using men for a good purpose, provided it is clear that no injury can come to any human being as a result, is not a sin in my humble opinion."

Subsequent meetings were held, the main purpose of which was to secure an act of incorporation from the legislature and to issue additional appeals to secure the interest of the public. Meetings in Brooklyn were attended by Horace Greeley, Henry Ward Beecher, and Professor Youmans. The attempt to secure a charter from the legislature finally succeeded, and an act of incorporation was granted at an extra session, April 12, 1853. Since the period when the foundation of a People's College was first proposed, Mr. Howard, the unwearied agent, had canvassed the state, and addressed meetings in nearly all of the large cities, and various agricultural and educational conventions, in behalf of the proposed college. In this work he was engaged until August, 1855, when efforts to raise money were suspended on account of the financial stringency.

The first meeting of the trustees of the People's College was held in Owego, May 25, 1853, at which D. C. McCallum was elected president of the board, A. I. Wyncoop of Chemung, vice-president, Tracy Morgan, treasurer, and Henry Howard, secretary and general agent.

At a meeting of the stockholders of the People's College held at Binghamton, November 26, 1856, a resolution was presented, "That, as a Board of Trustees, we will use our influence for the location of the college in the county which will first make up the balance of the \$50,000 needed to locate." It appears that this resolution was a shrewd parliamentary device, the true object



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of which was not then recognized, to secure the influence of the trustees to have the college located in Havana. The active agent in securing this location was the Hon. Charles Cook, who later came forward and offered to make up the subscription necessary to authorize the trustees to choose the site for the college. Commissioners were appointed to visit Havana and to examine the location which had been offered for the college by Mr. Cook. Previous failure and discouragement induced the trustees to look favorably upon any proposition that would secure the establishment of the college, for which many of them had labored so long.

At a meeting of the stockholders, held in Havana, January 15, 1857, the question of location was voted upon. The previous excitement had been intense, and efforts had been made to secure favorable ballots and proxies in favor of the location in Havana. Amidst what is reported as a perfect tempest of applause and the wildest enthusiasm, the number of votes in favor of such location was reported as 1,847, and opposed as 1,137, leaving a majority of 710 in behalf of Havana. Active measures were now taken to organize the college. The site and the farm which had been offered were regarded as satisfactory, and an effort was made to raise a sum of \$250,000 in order to secure the success of the enterprise. Committees were appointed to superintend the erection of buildings, to arrange a course of study, and to nominate professors.

At the meeting of August 12, 1857, plans for the new college were presented, the main building of which should contain a chapel which would seat 500 students, also lecture rooms, a chemical laboratory, library, cabinets, etc. On the following day the Rev. Amos Brown was elected president of the college, and Mr. Cook was made chairman of the Executive Committee and also

of the Building Committee. The National Land Grant Act in behalf of scientific and practical education, known as the Morrill Bill, was introduced soon after in Congress, and the trustees made an appropriation to send President Brown to Washington in order to promote the purposes of the bill. In the meantime, the erection of the proposed college building proceeded, the funds for which were largely contributed by Mr. Cook. It is probable that most of the subscriptions which had been made during previous years had lapsed, or that their collection had proved impossible. The financial crisis of 1857 now began, and all hope of securing an endowment from popular subscription was at an end. The only hope of fulfilling the conditions upon which the charter was given was based on the national aid expected in the passage of the Morrill Bill. It is of interest to notice the provisions of the charter of the People's College. It provided that the capital stock of the corporation of the college should consist of \$250,000, that the stock should be in shares of one dollar each, and that every stockholder should be entitled to but one vote in the choice of trustees or in any other business to be determined by the votes of the stockholders. Whenever the sum of \$50,000 was subscribed and paid in to the trustees, it was their duty to call a meeting of said stockholders to elect commissioners, who should select the most advantageous location for the college, and report at a subsequent meeting. The dissemination of practical science, including chemistry, mineralogy, and those sciences most immediately and vitally essential to agriculture and the useful arts, also for instruction in the classics, was said to be the aim of the new college. Manual labor for five days in the week in some branch of productive industry was required from every teacher and pupil, such labor in no case to exceed

twenty nor to fall below ten hours; and each student was to be credited with and ultimately paid for the product of his labor, less the cost of qualifying him to perform it effectively. No student was to be permitted to graduate with honor, until he had passed a certain examination with regard to his proficiency in agriculture, or some branch of manufacturing or mechanical industry, and a free choice was accorded to the student to pursue such branches of learning as he might select. The special line of work which the student had followed was to be specified in his diploma. Many features of this scheme were adopted later by Mr. Cornell in the charter of this university, and the influence of such views on a mind interested as he was in practical education cannot be overestimated.

The corner stone of the college was laid on September 2, 1858, when it is estimated that 15,000 people were present. The address on that occasion was delivered by President Mark Hopkins of Williams College. The enthusiasm and hopes manifested throughout the state in favor of the new college were very great. The failure of Congress to pass the Land Grant Act, upon which so much depended, followed by the sickness of Mr. Cook, practically put an end to the further progress and formal opening of the college. Mr. Cook had frequently stated that he purposed to endow the college with four hundred thousand dollars and to bequeath to it his entire fortune. After the erection of the college building his interest ceased, possibly on account of serious illness. A faculty eminent in their various departments had been appointed, a few of whom met at the time of the proposed opening of the college.

By an act of the legislature, passed April 24, 1862, the sum of ten thousand dollars a year for two years was given by the legislature to the college, but the

comptroller refused to pay this sum, upon the grounds that the conditions of the grant had not been fulfilled. The faculty, therefore, disappointed in any prospect of recompense for their services, with the exception of four professors, resigned. One further prospect of a successful existence arose after the passage by Congress of the Land Grant Act of July 2, 1862. After an exciting session of the legislature, in which all the recognized ability of Mr. Cook as a lobbyist, and his remarkable power of managing men, were required, the transfer of this noble national gift to the People's College was effected on May 14, 1863. This gift was granted upon the condition that the trustees should show to the satisfaction of the Regents of the university within three years from the passage of the act, that the college was provided with at least ten professors competent to give instruction in such branches of learning as are related to agriculture and the mechanic arts, including military tactics, as required by the act of Congress, and that the said trustees owned and were possessed of suitable college grounds, and buildings properly arranged and furnished for the care and accommodation of at least 250 students, with a suitable library, philosophical and chemical apparatus and cabinets of natural history, and also a suitable farm, of at least 200 acres, for the proper teaching of agriculture, with suitable farm buildings, farming implements, and stock, and also the necessary shops, tools, machinery, and other arrangements for teaching mechanic arts, all of which property must be held by the said trustees absolutely and fully paid for.

One striking feature of the act of the legislature bestowing this land upon the People's College was the provision for the free education of students from each county of the state. The number of such students was to be designated from time to

time by the Regents of the university, and the students themselves were to be selected by the chancellor of the university and the Superintendent of Public Instruction, who should jointly publish such rules and regulations in regard thereto as would in their opinion secure proper selections, and stimulate competition in the academies and public and private schools in this state. Such students were to be exempt from any payment for board, tuition, and room rent. Preference was to be given to the sons of those who had died in the military and naval service of the United States. A provision for free scholarships from the public schools is a feature of many of the earliest colleges established under the Land Grant Act. In receiving, therefore, this gift from the state, Cornell University voluntarily assumed, with the advantage of a more elaborate and definite specification of conditions, this provision of the People's College. It is also noticeable that in the charter of the People's College as passed by the legislature, the provision for co-education and for the instruction of women students in various branches of female industry was omitted.

One subject of instruction which had been advocated by the secretary in his various addresses in connection with the People's College, was military science and tactics. In a note upon his lecture on this subject he has this memorandum: "Handle the above carefully in country places; only refer to West Point and the order that military duties produce."

In drawing up the proposed plan of study in 1854, Mr. Greeley was opposed to having military science in the course. Mr. Howard and Professor Lindsley took the opposite view in the committee, and after long discussion, Mr. Greeley assented to the following statement: "The students of the college shall be instructed in the principles of the tactics provided for the dis-

cipline of the militia of the state of New York, and shall be familiarized with their practice at stated and regular drills; but the performance of military duty shall not conflict with the proper prosecution of academic or other studies, nor shall it be required of any whose convictions or principles are incompatible with the bearing of arms." Later, in 1862, Mr. Greeley thought it well to have a few well-drilled men scattered about the country in case of war.

The location of the People's College in Havana may be regarded as its death warrant; it fell by that act under the immediate domination of Mr. Cook, upon whom, as the largest contributor to its funds, it became absolutely dependent. The long duration of the struggle to raise funds had necessarily consumed in expenses a large part of what had been contributed for its organization. The personal ascendancy of Mr. Cook was manifest in the choice of a location and in the election of a president. The weary subscribers, who had planned with enthusiasm a popular college, saw their influence weakened, and the future of the institution, for which they had sacrificed so much, imperiled in its fundamental character. The Hon. T. C. Peters, one of the first presidents of the Board of Trustees, who had been one of its earliest advocates and had labored for its interests in the legislature, resigned his office on December 6, 1858, from distrust of the influences under which the college had fallen, and from a certain pretentious, extravagant, and impractical character which the college building had assumed.

The appropriation of the entire national gift to the People's College can only be regarded as a triumph of legislative manipulation. The college was not organized or equipped, while the State Agricultural College, only twenty miles away, was the child of the state,

and had been founded by a loan of state funds and in obedience to a popular demand. To pass by this institution, whose work had already begun but been interrupted by the war, and to bestow this splendid endowment upon a college not yet constituted, save prospectively, was an extraordinary proof of the power of a third house in legislation.

As early as in 1826, the Hon. James Talmadge, then lieutenant-governor of the state, in his report as chairman of the committee appointed to inquire into the condition of the College of Physicians and Surgeons in New York, had urged that it was not sufficient that the sciences connected with agriculture and the mechanic arts should be diligently studied and correctly understood by a few votaries in our literary institutions. It was very necessary that the sciences essential to the prosperity of manufacturing industry should be especially promoted. The report proposed that citizens to whom circumstances forbade the opportunities of an academic life should have the opportunity to study arts as applied to manufacturing industries. A system of lectures in the public schools, having this purpose, would have great advantages. It was suggested that in the existing colleges, and possibly in certain academies, courses of lectures should be established for the purpose of promoting instruction in agriculture, mechanics, and the useful arts.

After various memorials by the State Agricultural Society and reports by legislative committees, a charter was granted for an agricultural college on May 6, 1836. It was proposed to purchase a farm near the city of Albany, and erect an agricultural college; but as the funds for the support of such an institution were to be raised by shares in a stock company, the project failed. Later, commissioners from the eight judicial districts of the state met to mature a plan for an agri-

cultural college and experimental farm, in obedience to a concurrent resolution of the legislature passed April 6, 1849. Their report was presented at the session of the legislature of 1850. After various efforts, in which no result was reached, a charter was granted April 15, 1853, for the New York State Agricultural College. The passage of this act was largely due to the labor of John Delafield and John A. King, afterwards governor of the state. It was proposed at first to locate the college, which was to be founded by popular subscription, upon the Oakland farm in Fayette, the home of Mr. Delafield. It is interesting to find among the names of the original trustees that of William Kelly, later one of the charter trustees and warmest friends and benefactors of Cornell University. Owing to the death of Mr. Delafield, action in behalf of the new college ceased. After two years' delay, the citizens of Ovid, under the inspiring influence of the Rev. Amos Brown (January 22, 1855), appointed a committee to petition the legislature to locate the college in their vicinity, instead of in Fayette. On August 1 of the same year, the citizens of this county met to dedicate the new Ovid Academy and to hear addresses on the proposal to establish the State Agricultural College among them. The citizens pledged themselves to raise \$40,000, and asked \$200,000 of the legislature for its endowment. Through the influence of this meeting, the legislature passed an act March 31, 1856, authorizing a loan to the trustees of the Agricultural College of the sum of \$40,000 from the income of the United States Deposit Fund, for the payment of the land and the erection of buildings, a mortgage upon the same being given to secure the repayment without interest twenty years later, on January 1, 1877. It was provided that \$40,000 should be raised and applied by the trustees, as a condition precedent to this loan.

REAL GOOD

By an amendment to this act, passed May 6, 1863, the grant was made in money from any funds in the treasury, as the Deposit Fund had failed to supply the sum. Amid all these proceedings we may, perhaps, properly regard the activity and enthusiasm of Principal Brown as the moving spring. In the legislature the Hon. Erastus Brooks presented the matter before the Senate in a most vigorous and eloquent address. He begged that body to give practical vitality to the first agricultural college in the state and in the Union, adding that there were in this state between twelve and thirteen million acres of unimproved land, the value of which by intelligent and well-directed efforts might be quadrupled. While Great Britain supported seventy agricultural schools and colleges, France seventy-five, Prussia thirty-two, Austria thirty-three, and even despotic Russia sixty-eight, in New York there was not one, and in the United States not one. He added, "I feel mortified for my own state and country." The interest in agricultural education which Mr. Brooks had thus manifested in the Senate of the state of New York was exhibited later in his connection with Cornell University, of which he, in company with Mr. Kelly, became one of the charter members. The passage of the act establishing this college was received with great enthusiasm among the people of Central New York. The question of the location of the new college awakened equal interest. Desirable sites were offered on the west shore of Lake Cayuga, the choice of which was supported by the citizens of Ithaca. The people of Seneca County desired its location upon the shores of the lake of that name. The Ithaca people of that day urged in behalf of a site upon Lake Cayuga the greater variety of soil, finer shores, and the better railroad connections. The citizens of Geneva supported the interests of the rival site on Seneca Lake. Finally a

farm of 670 acres was purchased, the cost of which, at sixty-five dollars an acre, amounted to \$43,000, which was more than the entire amount of the state loan. The trustees took possession of the farm April 1, 1857. The Hon. Samuel Cheever had been elected president of the college. In December of this year plans were adopted for the college building. In May, 1858, the erection of the south wing was authorized at a cost not exceeding \$30,000. The plan of the college contemplated a central building ninety feet square, four stories high, surmounted by an observatory and towers, and having a north and south wing. The corner stone was not laid until July 7, 1859. The building progressed rapidly, but could not be completed until the autumn of the following year. On the 14th of November, 1860, a notice was published in the issue of the local paper which contained the news of the election of Abraham Lincoln, that the college would be open December 5, 1860. Major M. R. Patrick was president of the faculty; William H. Brewer, a native of Ithaca, and for forty years (1864-1904) professor of agriculture in the Sheffield Scientific School, was professor of agricultural chemistry and botany; Rev. Dr. George Kerr of Franklin, professor of philosophy and astronomy; and Messrs. Kimball and Mitchell, professors of chemistry and mathematics respectively. In the three years' course of study proposed, the languages were omitted, and the students at graduation were expected to be familiar with all details of a farmer's work, embracing the scientific knowledge of agriculture, landscape gardening, veterinary science, stock breeding, garden husbandry, plants and grasses, soils, etc. The popular excitement, destined to culminate in the Civil War, was so great that students entering the college were but few in number. Soon after the fall of Sumter, the president, a graduate of West

Point and a soldier of the Mexican and Florida wars, was summoned to Albany to assist in organizing the volunteers and preparing them for service. The southern students who were members of the college returned home; others enlisted, and the college came to an end. It was expected that it would soon reopen, but in March, 1862, it was officially announced that the college doors were closed for the present. Portions of the college domain, which were not covered by the mortgage to the state, were attached by the sheriff and sold. The unfortunate circumstances which had attended the opening of the college, together with its embarrassed financial condition, gave no hope of success in an effort to secure from the state a grant of the land bestowed by Congress for technical and liberal education. In January, 1866, the Willard Asylum for the Insane was established on the site of what it had been proposed should be the first agricultural college of the state.

CHAPTER IV

THE FOUNDER OF THE UNIVERSITY, THE HON. EZRA CORNELL

“**A** STATURE somewhat above the average, a form slender and rigid, a thin face of the well-known Puritan type, with lips which expressed in their compression an unwonted firmness of character, the slow, steady, stiff gait, a demeanor of unusual gravity, but which was sometimes a little too brusque to be dignified, a sharp eye with a straightforward look in it, a voice tending a little to shrillness and harshness, but in its more quiet modulations not unpleasant, an utterance slow and precise, as if every word was carefully if not painfully thought out—such was the founder of Cornell University as he walked among us during the first six years of the institution’s history. In whatever community, or in the midst of whatever surroundings his lot had been cast, he would have been a man of mark. A stranger, meeting him in the crowded railway car, would straightway see that he was not a mere individual of the ordinary type, that he possessed strong characteristics which made him noticeably different from other men. He had a good memory and a quick eye, and was a close and careful observer of men and things. . . . His most predominant trait, overlooking all others, was his complete self-abnegation. He was an utterly intensely unselfish man; no human being, with similar qualifications in other respects, could be more thoroughly uninfluenced by any considerations of his own comfort, of his own aggrandizement, or of his own fame. He was

generous alike of his time, his labor, and his wealth, and no thought of his own interest ever limited the flow of this generosity."

In such words as these the death of Mr. Cornell was announced to the university world. They characterize his outward bearing and many of the predominant characteristics of a stern, silent, warm-hearted nature.

Mr. Ezra Cornell was of Puritan descent, his family having settled in Swansea, Mass. His ancestors on both sides had been members of the Society of Friends. Like most of the early residents of New England, the family was of limited resources, and industry, simplicity, and economy were prevailing traits in the family life of the time. Mr. Cornell's father learned the potter's trade, but he was, besides, a mechanic both practical and skilful. He early removed to Westchester Landing, N. Y., and engaged, for a time, in shipbuilding. After a residence in Bergen County, New Jersey, near the site of the present beautiful village of Englewood, where he resumed his original craft as a potter, he removed to De Ruyter, N. Y. Here he established himself upon a farm, and, at the same time, carried on profitably the manufacture of earthenware. This was the early home of his son, Ezra Cornell, where, in a community of Friends, he grew up in the simple and healthy life which characterizes the members of this communion. Even as a boy, amid the restricted advantages of a new country, his education was limited; and once, when but sixteen years of age, in order to earn the privilege of attending a winter school, in company with a younger brother, he cut down and cleared the timber upon four acres of forest, transforming it into tillable land. A year or two later he cut timber in a forest, and with the aid of the same brother erected a two-story dwelling-house for his father, at that time the largest residence in the

town. Having thus tested his capacity for work, he went forth, and was engaged for the next three years in the work of cutting timber for shipment to New York, and later as a machinist. Ithaca was at this time a village of two thousand inhabitants, and enjoyed the benefit of a thriving trade with the large territory which depended upon it for communication with the markets of the external world. "With a spare suit of clothes and a few dollars in his pocket, the earnings of his previous labors, Ezra Cornell entered Ithaca on foot, having walked from his father's house in De Ruyter, a distance of forty miles. He had chosen to make the journey thus, not only for the purpose of saving the expense of riding, but also for the pleasure he enjoyed in walking. He could travel forty miles per day with perfect ease. Without a single acquaintance in the village, and with no introduction or certificate of character in any form, except such as he could offer in his own behalf, he arrived in Ithaca with youth, courage, and ambition as capital stock, determined by his own exertions to earn a living and establish himself on a permanent and prosperous basis." It was in April, 1828, soon after his arrival, that Mr. Cornell secured work as a carpenter, and erected at the corner of Geneva and Clinton streets a residence which is still standing, and which has for many years been the home of the Bloodgood family. Mr. Cornell's experience for a year as a millwright secured employment for him in certain flouring and plaster mills at Fall Creek, and for the next twelve years he was a manager of extensive interests, which often involved the disbursement of hundreds of thousands of dollars annually. Dr. Theodore L. Cuyler, in a letter written thirty years afterwards, said that he used to see sitting on the counter of his uncle's store (Mr. John James Speed's) "a shrewd, managing chap unfolding schemes for carry-

ing the township for the Whig ticket. That obscure but keen-witted man is now the Ezra Cornell who has founded the most promising university in New York." Mr. Cornell's early interest in politics is manifest from this statement. His ability as a mechanic of a high order was shown still further, not merely in erecting mills, but also in devising and executing a feat of engineering of very great difficulty, viz., in cutting a tunnel above the falls, through several hundred feet of solid rock, thus securing an abundant supply of water for numerous manufactories below, which has remained in constant use up to the present time. This important work was finished in 1831. The tunnel was cut through a cliff and work was begun at both extremities. When the two galleries met in the center, a variation of less than two inches from an exact line was found.

During these years Mr. Cornell was active in local politics, advocating with great energy the principles of the Whig party. At the age of thirty-five, an interruption in the industrial prosperity of Ithaca threw Mr. Cornell out of employment, and his life now began upon a wider sphere. He purchased the patent rights for an improved plow, and journeyed to Maine mostly on foot to effect its sale, and later he made a tour through the Southern States, going as far as Georgia. During this journey he walked a distance of one thousand five hundred miles. A second journey to Maine was undertaken in the year 1843. On his previous visit Mr. Cornell had met the Hon. Francis O. J. Smith, a Democratic congressman from Maine, the editor of the *Maine Farmer*. Mr. Smith was a politician of great influence; and though greatly defamed by political enemies for his skill and adroitness, a man of unusual ability. He had become interested in the electric telegraph. This enterprise in its initial steps was in-

volved in great difficulty. Many important facts necessary for its practical use were as yet undiscovered, and it was only slowly that experience called attention to the necessity of essential improvements, before its inventor's dream of success could be realized, and the public share in the advantages of this brilliant invention. It was supposed that two wires were necessary in order to form a complete metallic circuit. No mode had then been devised for the treatment of India rubber to make it available for the purposes of insulation, and gutta-percha was wholly unknown as an article of use or commerce in this country. It was not yet determined how the wires could be extended between cities. It was thought at first that the wires should be enclosed in an underground tube. Upon the occasion of Mr. Cornell's second visit to Portland, he found Mr. Smith upon the floor of his office, with designs around him for the manufacture of a plow which should excavate the furrow for the underground telegraph pipe. It was proposed also to design a second machine to cover the pipe. Mr. Smith had taken the contract to lay the pipe at one hundred dollars per mile, and it was necessary to invent some machine capable of executing his purpose successfully. He hailed the arrival of Mr. Cornell as the person to solve his difficulties. Mr. Cornell, after examining the plan, was convinced that a single machine would suffice for the purpose. He thus describes the event: "I, therefore, with my pencil sketched a rough diagram of a machine that seemed to me adapted to his necessities. It provided that the pipe with the wires enclosed therein was to be coiled around a drum or reel, from whence it was to pass over and through a hollow standard protected by shives directly in the rear of the coulter or cutter, which was so arranged as to cut a furrow two and one-half feet deep and one



CORNELL UNIVERSITY GENERAL VIEW

and one-fourth inches wide. Arranged something like a plow, it was to be drawn by a powerful team, and to deposit the pipe in the bottom of the furrow as it moved along; the furrow, being so narrow, would soon close itself and conceal the pipe from view." Overcoming his scepticism, Mr. Smith authorized Mr. Cornell to make the pattern for the necessary castings, who also, in the meantime, constructed the woodwork for the frame. On the 17th of August, 1843, a successful trial of Mr. Cornell's invention was made on Mr. Smith's farm in Westbrook, a few miles north of Portland. "The complete success of my machine, and the prompt manner of making the invention the moment that circumstances demanded its use, inspired Mr. Smith with great confidence in my ability both as a mechanic and a practical man. He therefore urged me to go to Baltimore with the machine, and take charge of laying the pipe between that city and Washington. As this proposition involved the abandonment of the business which I came to Maine to look after, it was with some hesitation that I entertained it. A little reflection, however, convinced me that the telegraph was to become a grand enterprise, and this seemed a particularly advantageous opportunity for me to identify myself with it. Finally, convinced that it would shortly lead me on the road to fortune, I acceded to Mr. Smith's earnest solicitation, and engaged to undertake the work on condition that I should first devote a little time to the settlement of my business in Maine." This was the beginning of Mr. Cornell's connection with the electric telegraph, which became the source of his fortune.

It has been shown how incomplete the invention was as a practical achievement. Professor Morse says that up to the autumn of 1837, his telegraph apparatus existed in so crude a form that he felt a reluctance to have it seen; but on the 6th of January, 1838, he op-

erated his system successfully over a wire three miles long, in the presence of a number of personal friends, at Morristown, N. J. Later, the leading scientists of New York, and the faculty of the university as well as the Franklin Institute of Philadelphia, recognized its pre-eminent merit. Mr. Morse removed his apparatus from Philadelphia to Washington, where he demonstrated its success in the presence of President Van Buren and his cabinet, foreign ministers, and members of Congress. Congress finally appropriated, at the close of the session of 1843, thirty thousand dollars for the erection of an experimental line of telegraph between Washington and Baltimore. The original plan of placing the wires underground proved unsuccessful from the impossibility of effective insulation. Mr. Cornell then made a careful study of all the available scientific works which treated of electrical science, and finally urged the adoption of the method which had proved successful in England in the hands of Cooke and Wheatstone—of placing the wires on poles. On May 1, 1844, the line was completed and in operation between Washington and Baltimore. Mr. Morse now offered to sell the patent to the United States government, to be used in connection with the postal service, for one hundred thousand dollars. The post-office department, to which this proposition was referred, reported that the operation of the telegraph between Washington and Baltimore had not satisfied the postmaster-general, and that at any possible rate of postage, its revenues could not be made to cover its expenditures. Under the influence of this report, Congress declined to accept the offer of the patentees, and the telegraph was left to seek development by the aid of private capital.

Mr. Cornell was now formally enlisted in the development of this invention. He had short lines of

telegraph erected across streets or between buildings in Boston and New York, with the purpose of interesting capitalists in the formation of a company to erect a line between Washington, New York, Philadelphia, and Boston. Mr. Cornell constructed the section of the line between Fort Lee, opposite New York, and Philadelphia, in the summer of 1845. His compensation for superintendence was at this time one thousand dollars per annum. All the money that he could spare was now invested in the capital stock of the Magnetic Telegraph Company, the first incorporated organization to promote this new enterprise. It was not merely as a superintendent and constructor of telegraph that Mr. Cornell's admirable powers were displayed. He designed apparatus to facilitate the transmission of messages, among other things a relay magnet which was used successfully for a considerable time. Mr. Cornell next erected a line between New York and Albany, under contract with the New York, Albany, and Buffalo Telegraph Company, which was completed successfully in the autumn of 1846. From this enterprise Mr. Cornell realized a profit of six thousand dollars, his first substantial gain after three years of labor in connection with the telegraph. Later, he also erected lines from Troy to Montreal, and a portion of a line to Quebec. Mr. Cornell now assumed a larger responsibility in establishing the work of the telegraph system of this country. He organized the Erie and Michigan Telegraph Company to provide a line of telegraph between Buffalo and Milwaukee *via* Cleveland, Detroit, and Chicago, and also the New York and Erie Telegraph Company to connect Dunkirk with the city of New York, passing through the southern counties of the state. In much of the territory west of Buffalo, telegraph lines were established before the railways, branch lines were erected to

connect with the Erie and Michigan Company's lines, from Cleveland to Pittsburgh, from Cleveland to Zanesville and Wheeling, and from Cleveland to Columbus and Cincinnati. The rapid development of telegraphic communication created a rivalry between opposing lines, and competing offices were erected in various cities for the transaction of business. In 1855 the Western Union Telegraph Company was organized, by which these conflicting interests were consolidated. This company embraced at first the lines in the states of Ohio, Indiana, Michigan, Wisconsin, and in a portion of Illinois. The success of this union of opposing interests was at once manifested. The profits of the enterprise increased rapidly, and the company employed its accumulating profits in extending its system over a wider field. Other lines were purchased, new lines were built, others leased in perpetuity, and thus the position of the new company was rendered complete and impregnable. Later, the Western Union Telegraph Company assumed the contract of Mr. Sibley, and extended its lines across the continent ten years in advance of the railroad.

In 1862 Mr. Cornell took his seat in the legislature of the state. He served for two terms as representative, and for two terms as senator. His term of service fell, in part, within the years of the Civil War, when it was necessary to sustain the Federal government with every influence which its most powerful state could afford. In all the questions to which the war gave rise, Mr. Cornell supported earnestly the national cause. During his residence in Albany he was chairman of the Committee on Agriculture in the Senate, and also chairman of the Committee on Finance. He was an uncompromising advocate of sustaining the credit of the state by payment of the principal and interest of the public debt in specie, in accordance

with the true spirit under which the obligation was incurred. He also advocated the creation of sinking funds for the gradual extinction of the debts of the state. These wise measures have practically extinguished the entire indebtedness of the state. We find him active in the labor of the committees of which he was a member. Although not an orator, his remarks were terse and convincing. His name is associated with numerous measures for the benefit of agriculture, finance, and education. His services in the legislature were recognized by his constituents by a unanimous renomination for senator. When he retired, it was at his personal wish, in order to devote himself to the interests of the university which he had founded. All Mr. Cornell's acts expressed his strong individuality. Definiteness characterized all his opinions, and views, once adopted, were sustained with tenacity in the face of all opposition. All idealists are perhaps visionary, and the erection of the university which bears his name was a noble ideal which Mr. Cornell set before him as the crown of his life. Visionary he may have been in other things, but a humane purpose underlay all. A grim humor lent often a sardonic touch to his conversation, and often relieved the stress of severe details, as is shown in his letter to President White, whose chirography was often the despair of his best friends. He wrote: "I hope you will write often, in case I can read what you write. You know I have no time to waste." In a letter to a parent respecting a delinquent son who had fallen down a trapdoor in an unused university room while engaged in some escapade, Mr. Cornell wrote: "In the event of his return we will do the best we can for his improvement, but we cannot be responsible if, in bursting in and breaking down our doors, he should break another leg or neck." Mr. Cornell was universally appealed to

by the great world without as if responsible for every detail of administration. His care and oversight of everything that concerned his beloved university were minute. To promote its interests he was led to withdraw his capital from the telegraph in which it was rapidly increasing, and where its security seemed unassailable, in order to promote the erection of railways through his native city. Mr. Cornell's letter-books show the enormous labor to which he subjected himself, the minute and patient detail with which he answered inquiries and attended to every question of the administration of the university lands. He was unable to relinquish minor matters to others, and the new and untried responsibilities which he had assumed in connection with the railways were beyond his powers of immediate direction. In these vast undertakings, to which he was impelled by a desire to benefit his native place as well as to build up the university, his large fortune was impaired. Prosperous times could not probably then have secured the success of his venture; but in the paralysis of all business in the crisis of 1873, it is not strange that his enterprises yielded to inevitable laws upon which all industrial prosperity depends. The blow of impending loss was met by Mr. Cornell silently, heroically, but with unfaltering resolution. The vigor and courage which had won his great fortune made his spirit still hopeful, almost triumphant, amid financial loss.

In June, 1874, Mr. Cornell was suddenly incapacitated from attention to business by serious illness, which he had contracted by unconscious exposure while traveling. From this illness he never recovered. Pneumonia passed into a settled affection of the lungs, and all hope was at an end. During his last months of weakness, mindful of the university which lay so near his heart, he transferred to it all his interests in the

national lands which he had purchased, and thus secured its permanence. During his sickness he longed to recover; he could not bear the thought of defeat, and he wished to earn, as he said, a half-million dollars more for the university. The enormous task of administering the estate of the university, which he had assumed, and the terrible burdens associated with the three railway enterprises in which he was engaged, added a crushing weight to the suffering of his last months. Even upon the morning of the 9th of December, 1874, he rose with the wonderful energy inherent in his nature, and was dressed, and devoted himself during the hours of the morning to business. At last, overcome by weakness, he sought his couch, and soon after noon his work was over.

Although Mr. Cornell was by nature reserved, and there was an element of sternness in his exterior, only those who were intimate with him knew the warmth of personal affection which burned in his heart. His devotion to his family—his longing, when absent, for the sight of his little girls, and his remembrance of every member—found constant expression in his letters. His integrity and loyalty in the support of everything that he believed right, all knew; but the warmth of feeling in his nature was known only to his most intimate friends.

The news of his death called out an expression of popular sorrow in the community in which he lived, such as is but rarely awakened; and neighboring cities held meetings to pass resolutions of respect for his memory. The funeral pageant associated with the death of this simple citizen was a universal tribute to his character and work. The university and the buildings of the city were draped with mourning emblems. A guard of honor of student cadets marched beside the hearse. The faculty and trustees, scientific men, repre-

sentatives of other universities, delegates from many cities, and his fellow-citizens whom he loved, constituted his escort. He rests in a Memorial Chapel erected in the center of the university, which will be his truest monument. Here it was his wish that he should rest.

The following memorial poem was written by Mr. Cornell's friend and legal adviser, the Hon. Francis M. Finch:

FOUNDER'S HYMN.

The "Chimes" are still. Alone,
 As falls the Year's last leaf,
 The great bell's monotone
 Slow hymns our helpless grief.
 Bountiful heart!—bountiful hand!
 Bountiful heart and bountiful hand!
 O Father and Founder!—O Soul so grand!
 Farewell, Cornell!—Farewell!

From Slander's driving aleet,
 From Envy's pitiless rain,
 At rest, the aching feet!—
 At rest, the weary brain!
 Laboring heart!—laboring hand!
 Laboring heart and hand!
 O Father and Founder!—O Soul so grand!
 Farewell, Cornell!—Farewell!

So calm, and grave, and still,
 Men thought his silence pride;
 Nor guessed the truth, until
 Death told it—as he died.
 Lowly of heart!—lowly of hand!
 Lowly of heart and hand!
 O Father and Founder!—O Soul so grand!
 Farewell, Cornell!—Farewell!

"True," as the steel to star;
 With eye whose lifted lid
 Let in all Truth—though far
 In clouds and darkness hid.



KAPPA SIGMA

Confident heart!—confident hand!
Confident heart and hand!
O Father and Founder!—O Soul so grand!
Farewell, Cornell!—Farewell!

“ Firm,” as the oak’s tough grain,
Yet pliant to the prayer
Of Poverty, or Pain,
As leaf to troubled air.
Kindliest heart!—kindest hand!
Kindliest heart and hand!
O Father and Founder!—O Soul so grand!
Farewell, Cornell!—Farewell!

Untaught—and yet he drew
Best learning out of life,
More than the Scholars knew,
With all their toil and strife.
Conquering heart!—conquering hand!
Conquering heart and hand!
O Father and Founder!—O Soul so grand!
Farewell, Cornell!—Farewell!

The spires that crown the hill,
To plainest labor free,
Where all may win who will,—
His monument shall be!
Generous heart!—generous hand!
Generous heart and hand!
O Father and Founder!—O Soul so grand!
Farewell, Cornell!—Farewell!

Brave, kindly heart, adieu!
But with us live alway
The patient face we knew,
And this memorial day.
Bountiful heart!—bountiful hand!
Bountiful heart and hand!
O Father and Founder!—O Soul so grand!
Farewell, Cornell!—Farewell!

CHAPTER V

THE CHARTER OF THE UNIVERSITY

IT is interesting to inquire what were the causes which led Mr. Cornell to devote so large a part of his unexpected and constantly increasing wealth to the founding of a university. He had always been thoughtful upon questions affecting the interests of the people. Originally a farmer's son, and later a mechanic, and brought into association with scientific men through the practical application of the telegraph, he saw the great need of thoroughly trained and practical scientists. He realized that individual and national wealth would be promoted even by an imperfect popular knowledge of the sciences which relate to life, and also the incalculable loss to individuals and the nation from unsystematic, unscientific, and prodigal methods.

It is probable that his purpose to devote his wealth to the benefit of his fellow-men was formed slowly in his mind. The unexpected increase in his fortune, beyond his hopes, suggested to him the possibility of using some portion of it for the public good. Beyond the natural desire to provide for his family, Mr. Cornell had no personal ambition for vast accumulation. In private life he was genuinely and unostentatiously generous. The desire that his gifts should assume a permanent form, blessing the future as well as the present, assumed shape silently and unspoken, like so many of his plans. In the summer of 1863 he was seriously ill for several months. As he recovered he said to his physician, "When I am able to go out, I

want you to bring your carriage and take me upon the hill. Since I have been upon this sick bed, I have realized, as never before, by what a feeble tenure man holds on to life. I have accumulated money, and I am going to spend it while I live." They drove subsequently to the hill, which constitutes the present site of the university, to what was then Mr. Cornell's farm. He spoke with the greatest enthusiasm of his determination to build an institution for poor young men; he wished an institution different from the ordinary college, where poor boys could acquire an education. He did not desire an entrance examination, but that they should study whatever they were inclined to. Mr. Cornell described the buildings which should crown the hillside, and pointed out where they should stand.¹ Mr. Cornell's immediate attention was then engrossed with the foundation of the Cornell Library, which was chartered a few months later, and presented to the city of his residence.

It is probable that, even with this noble intention, much was still vague in his mind as to the exact form which the institution should assume. He contemplated, undoubtedly, some form of industrial school. The immediate occasion which gave definiteness to his purpose was, as he himself stated in answer to the inquiry, whether he had purposed for many years to found a great university, or whether the plan had been presented to him by some fortuitous circumstance, that very much was due to his election as one of the trustees of the State Agricultural College at Ovid, and to the discovery which he had made at two meetings of the trustees of that institution, of the great need of some

¹ Mr. Cornell visited this site with different groups of friends and spoke enthusiastically of the view and of the splendid future of his university. Personal statements from his associates differ in detail and are evidently based on varying incidents.

suitable provision in our own country for the education of young men in agriculture and the mechanic arts.

Mr. Cornell had been for several years vice-president of the State Agricultural Society. In 1862 he was its president, and in that capacity attended the great International Exposition in London as the official representative of the New York State Agricultural Society. He traveled extensively and studied carefully the agriculture of the different parts of England, Scotland, Wales, and Ireland. He also studied with interest the methods of the famous school of agricultural science connected with the establishment of Lawes and Gilbert at Rothamstead. Upon his return, an opportunity presented itself to him to do for his native country what he had seen so successfully instituted abroad. The work of the State Agricultural College in Ovid had ceased with the opening of the Civil War, after less than a half-year's existence, and instruction had not been resumed. The college had enthusiastic friends, among whom were many of the most advanced agriculturists of the state. Its governing board was, however, composed of men with little experience as educators and unfitted to carry out the great schemes which they had at heart. The funds of the college had been largely consumed in the purchase of a beautiful site of six hundred and twenty-seven acres of land overlooking Seneca Lake. Other funds, subscribed by the farmers of the vicinity under the lead of Principal Brown, had been wasted by unskilful management in the erection of a costly building left incomplete and unequipped for the purposes for which it was erected; and a mortgage of \$40,000 upon the property was held by the state. Under these circumstances the trustees, under the presidency of Governor King, met in Rochester, September 20, 1864, to hear the report of the finance committee. The war still continued. The

prospects for the future of the college were depressing; the outlook for the future was apparently hopeless; the college was in effect bankrupt. Mr. Cornell listened silently to the discussion of the various plans of relief which were proposed. He then rose and read the following proposition:

"I have listened patiently to this discussion, which has so fully developed the present helpless situation of the college and shown so little encouragement in its future prosperity, until I have come to the conclusion that the trustees would be justifiable in changing the location of the college, if it can be done with the approval of the citizens of Ovid, and an adequate endowment thereby secured for the college in some other proper locality. Therefore,

"I submit for your consideration the following proposition. If you will locate the college at Ithaca, I will give you for that object a farm of three hundred acres of first quality of land, desirably located, overlooking the village of Ithaca and Cayuga Lake, and within ten minutes' walk of the Cornell Library, the churches, the railroad station, and steamboat landing. I will also erect on the farm suitable buildings for the use of the college, and give an additional sum of money to make up in the aggregate three hundred thousand dollars, on condition that the legislature will endow the college with at least thirty thousand dollars per annum from the Congressional Agricultural College Fund, and thus place the college upon a firm and substantial basis, which shall be a guarantee of its future prosperity and usefulness, and give the farmers' sons of New York an institution worthy of the Empire State."

This munificent offer was accepted with enthusiasm. Another session was called to meet in Albany, at which it was proposed to invite for consultation various

friends of education who were not trustees. At this meeting, January 12, 1865, the sentiment among the intelligent friends of education was strongly developed in favor of retaining the national grant intact, and not to dissipate or divert it by distribution among the various small colleges.

The Hon. Victor Rice, superintendent of public instruction, in his report presented to the legislature, January 1, 1863, had announced the passage by Congress of the act donating land to private colleges for the benefit of agriculture and the mechanic arts. He then added, that he was persuaded that true economy and practical wisdom required that this fund should go to the endowment and support of one institution. "If an attempt shall be made to endow two or more colleges, the whole income may be comparatively useless. The division of it into two parts would be made the entering wedge for applications for another and another division, until the whole will be so divided among many, that not any one will be complete in its facilities for instruction. The state has at various times made grants of land and money to colleges and academies until the aggregate sum amounts to millions. In numerous instances the chief result of its bounty has been to enable many of these institutions to prolong a precarious existence, too weak to be of real public utility." After speaking of the demand for a more learned class of intellectual readers, who, furnished with the means and leisure necessary to the prosecution of philosophical investigation, may be induced to pursue science itself, irrespective of the immediate practical benefit, he said: "We need only direct our attention to the universities of Europe to show the advantages of the plan which there furnishes such numerous patterns of ripe scholarship and so many examples of successful research in enlarging the boundaries of knowledge."

What we need most emphatically, therefore, is the establishment of one institution adequately endowed, offering ample inducements to learned men to become its inmates, and supplied with every attainable facility for instruction in the highest departments of literary and philosophical learning, as well as in the various branches of knowledge pertaining to the industrial and professional pursuits. Its corps of teachers should be composed of men of vigorous mental endowments and the best culture, and in numbers sufficient to allow a complete division of labor. When thus appointed, the doors of the institution should be opened to all who are prepared to enter. It should be free, so that lads born in poverty and obscurity who may have shown themselves to be meritorious in the primary schools shall not be excluded. . . . Let study and manual labor go hand in hand and then learning will dignify labor and labor will utilize learning."

Governor John A. Andrew of Massachusetts, in an eloquent address to the legislature, in January, 1863, favored the same views.

In looking back, it is impossible to determine what considerations influenced the legislature in bestowing the national grant upon the People's College, which occurred May 14, 1863. Persistent agitation and a skilful lobby seem to have blinded the legislators to the flimsy character of the promises held out by the advocates of the college, which even induced senators and representatives who were later of national reputation, among them Chief-Justice Folger, afterwards secretary of the treasury, and the noble chancellor of the University of the State of New York, Mr. Pruyn, to support this measure. On the other hand, the influential class interested in promoting agriculture and applied science, upon which the wealth of all other classes so largely depends, earnestly opposed this ap-

propriation of the land grant fund. Remonstrances and memorials from the State Board of Agriculture and from numerous societies protested against this disposal of the fund, but in vain. Among the prominent sympathizers with the latter view was Mr. Cornell, who introduced a bill to divide the fund between the two institutions. Here a difficulty arose. The act of the legislature bestowing the land grant upon the People's College allowed three years in which to fulfill the conditions imposed by the law—that is, a compliance with that law before May 14, 1866, was not required. The efforts to repeal the grant or to modify its provisions arose in the session of the legislature which assembled in January, 1864, in which Mr. Andrew D. White first took his seat as senator. His views were opposed to those of Mr. Cornell. He insisted that the fund ought to be kept together at some one institution; that on no account should it be divided; that the endowment for higher education in the state of New York, which had already suffered sufficiently from scattering its resources, should be concentrated. Mr. Cornell desired to have his bill referred to the Committee on Agriculture, of which he was chairman, and from which a report favorable to his own views might be expected. Mr. White desired its reference to the Committee on Literature, of which he was chairman, and it was finally referred to a joint session of the two committees. Mr. White states: "On this double-headed committee I deliberately thwarted his purpose throughout the entire session, delaying action and preventing any report upon his bill, at the same time urging Mr. Cornell to adopt a view favorable to the concentration of the fund in one institution."

Danger of the failure of the national land grant was not at this time to be feared, as the original act allowed five years, within which any state could provide one



FALL CREEK RAVINE IN WINTER

WASH. STATE COLLEGE
LIBRARY
SPRINGFIELD, ILL.



college for instruction in agriculture, which New York had already done.

At an adjourned meeting of the trustees of the State Agricultural College, held in Albany, January 12, 1865, Mr. Cornell offered to increase his gift to \$500,000, provided the legislature would transfer the public lands donated by the general government to the institution that he proposed to found, which was to be organized and located in Ithaca. A committee was appointed to correspond with gentlemen connected with the management of the People's College, and with other persons prominent in the educational interests of this state, and to invite them to meet the gentlemen connected with the New York State Agricultural College, to take into consideration and jointly act on the proffer of \$500,000 for educational purposes by the Hon. Ezra Cornell. Mr. Andrew D. White, Mr. William Kelly, and Mr. B. P. Johnson were appointed a committee to arrange for a conference to be held at the State Agricultural Rooms in Albany, January 24, 1865.

Mr. Cornell had been a member of the Assembly from 1862 to 1864; from 1864 to 1868 he was a member of the Senate, and it was at this time that he made his proposal to endow a new institution in Ithaca. At this time Mr. Cornell came into intimate personal relations with Mr. Andrew D. White, who entered the legislature as senator from Onondaga County in 1864. Mr. White's earnest and aggressive nature, as well as his warm enthusiasm for education, made him active in all questions affecting the educational policy of the state. He was made chairman of the Senate Committee on Literature, and naturally occupied an influential position in the questions which arose in connection with the foundation of the new university. Mr. Rice, whose views of the wisdom of preserving the land grant undivided were known, was still Superintendent

of Public Instruction, and Mr. White vigorously represented these views. Mr. Cornell adhered strenuously to his original proposal. His views were opposed, as has been stated, by Mr. White and by the Department of Education. In a letter written several years later to the chancellor of the University of the State of Missouri, Mr. Cornell nobly admitted that the wiser view, in education, required the concentration of all funds bestowed by the national government in a single institution, and ascribed pre-eminently to Mr. White the credit of influencing him to adopt the same position.

In pursuance of the plan of securing the national grant for the proposed college, Mr. White introduced a resolution in the Senate, February 4, requesting the Board of Regents to communicate to it any information in its possession in regard to the People's College in Havana, and to state whether in their opinion said college is, within the time specified, likely to be in a condition to avail itself of the fund granted to this state by the act of Congress. A committee was appointed on February 6 to visit the People's College and to determine whether its present condition, or the measures already undertaken, were likely to prove adequate to secure compliance with the act of the legislature. The committee, after visiting Havana and examining the authorities of the People's College, reported that the building was of substantial and excellent character and well calculated for the purposes for which it had been erected; that it contained ample room for the accommodation of 150 students, with the number of professors and teachers required by the act of 1863, but that it was not sufficient for the accommodation of 250 students, and that up to the present time it had not complied with the conditions of the act. It appeared from the testimony that at that time no

library had been purchased by the college, that it possessed no philosophical or chemical apparatus, and that it was not yet provided with shops, tools, machinery, or other arrangements for teaching the mechanic arts, or with farm buildings, implements, or stock. The amount which had been expended upon the college was at that time \$70,235; of this sum \$56,095 had been contributed by Mr. Charles Cook, and \$14,140 by others. It also appeared that the Hon. Charles Cook had paid out of his own funds the sum of \$31,700 (in addition to his subscription of \$25,000) for the erection of the People's College, and had donated to it sixty-two acres of land. This sum of \$31,700 had been expended in the erection of the college edifice, in return for which the trustees of the People's College agreed that, in consideration of the conveyance to the college of a fee simple of the college edifice and sixty-two acres of land, this grant should always be held inviolate for the purposes of the college, and that in case the trustees should fail to maintain the college, this property should revert to Mr. Cook or his heirs.

In the meantime, action looking toward the establishment of Cornell University was carried on in the legislature. On February 3 Mr. White gave notice that at an early day he would ask leave to introduce a bill to establish the Cornell University and to appropriate to it the income from the sale of public lands, granted to this state by Congress on the 2d of July, 1862. This bill was formally introduced on February 7 and referred to the committees on Literature and Agriculture. Mr. White, in his *Reminiscences of Ezra Cornell*, thus describes the origin of the charter:

“ We held frequent conferences as to the leading features of the institution to be created; in these I was more and more impressed by his sagacity and largeness of view, and when our sketch of the bill was fully de-

veloped, it was put into shape by Charles J. Folger of Geneva, then chairman of the Judiciary Committee of the Senate, afterwards Chief Judge of the Court of Appeals. The provision forbidding any sectarian or partisan predominance in the Board of Trustees or faculty was proposed by me, heartily acquiesced in by Mr. Cornell, and put into shape by Judge Folger. The state-scholarship feature and the system of alumni representation¹ on the Board of Trustees were also accepted by Mr. Cornell at my suggestion.

“ I refer to these things especially because they show one striking characteristic of the man, namely, his willingness to give the largest measure of confidence when he gave any confidence at all, and his readiness to be advised largely by others in matters which he felt to be outside his own province.

“ On the other hand, the whole provision for the endowment, the part relating to the land grant, and, above all, the supplementary bill allowing him to make a contract with the state for ‘ locating ’ the lands, were thought out entirely by himself; and in all these matters he showed, not only a public spirit far beyond that displayed by any other benefactor of education in his time, but a foresight which seemed to me then, and seems to me now, almost miraculous.

“ But, while he thus left the general educational features to me, he uttered, during one of our conversations, words which showed that he comprehended the true theory of a university: these words are now engraved upon the Cornell University seal: ‘ I would found an institution where any person can find instruction in any study.’ ”

Mr. White, on behalf of these committees, reported favorably on February 25 an amended act to establish

¹ The provision for alumni representation on the Board of Trustees was first made in the amended charter, passed April 24, 1867.

Cornell University. After being considered in the committee of the whole, the bill received a second reference to the committees on the Judiciary and Literature. This bill was favorably reported with amendments, March 15, and passed. The reopening of the question of the disposal of the public lands brought representatives of various colleges to Albany to urge the claims of their institutions. Various efforts were made to divide the fund by providing for the establishment of professors of agriculture in several institutions. In one case the effort to secure a portion of the appropriation was so strong that in order to defeat the lobby which was working in its behalf, Mr. Cornell consented to incorporate a provision, by which he bound himself to pay to the Genesee College in Lima \$25,000 for the support of a professorship, which should furnish the instruction in agriculture required by the act of Congress. This, however, removed only one competitor from the field. The interests which had been represented by the State Agricultural College had been harmonized, but the friends of the People's College, under the powerful leadership of Mr. Cook, were alert and vigorous. Mr. White gives the following graphic account of the legislative struggle for a charter in the Assembly:

"The coalition of forces against the Cornell University bill soon became very formidable, and the committee on education in the Assembly, to which the bill had been referred, seemed more and more controlled by it. To meet this difficulty, we resorted to means intended to enlighten the great body of the senators and assemblymen as to the purposes of the bill. To this end, Mr. Cornell invited the members, sometimes to his rooms at Congress Hall, sometimes to mine at the Delavan House; there he laid before them his general proposal and the financial side of the plan, while I

dwelt upon the need of a university in the true sense of the word,—upon the opportunity offered by this great fund,—upon the necessity of keeping it together,—upon the need of large means to carry out any scheme of technical and general education such as was contemplated by the congressional act of 1862,—showed the proofs that the People's College would and could do nothing to meet this want,—that division of the fund among the existing colleges was simply the annihilation of it,—and, in general, did my best to enlighten the reason and arouse the patriotism of the members on the subject of a worthy university in our state. In this way we made several strong friends in both Houses.

“ While we were thus laboring with the legislature as a whole, serious work had to be done with the Assembly committee, and Mr. Cornell employed a very eminent lawyer to present his case, while Mr. Cook employed one no less noted to take the opposite side. The session of the committee was held in the Assembly chamber, and there was a large attendance of spectators; but, unfortunately, the lawyer employed by Mr. Cornell having taken little pains with the case, his speech was cold, labored, perfunctory, and fell flat. The speech on the other side was much more effective; it was thin and demagogical in the extreme, but the speaker knew well the best tricks for catching the ‘average man’; he indulged in eloquent tirades against the Cornell bill as a ‘monopoly,’ denounced Mr. Cornell roundly as ‘seeking to erect a monument to himself’; hinted that he was ‘planning to rob the state,’ and, before he had finished, had pictured Mr. Cornell as a swindler, and the rest of us as dupes or knaves.

“ I can never forget the quiet dignity with which Mr. Cornell sat and took this abuse. Mrs. Cornell sat at

his right, I at his left. In one of the worst tirades against him, he turned to me and said quietly, and without the slightest anger or excitement, 'If I could think of any other way in which half a million of dollars would do as much good to the state, I would give the legislature no more trouble.' Shortly afterward, when the invective was again especially bitter, he turned to me and said, 'I am not sure but that it would be a good thing for me to give the half a million to old Harvard College in Massachusetts, to educate the descendents of the men who hanged my forefathers.'

"There was more than his usual quaint humor in this—there was that deep reverence which he always bore toward his Quaker ancestry, and which seemed to have become part of him. I admired Mr. Cornell on many occasions, but never more than during that hour when he sat, without the slightest anger, mildly taking the abuse of that prostituted pettifogger, the indifference of the committee, and the laughter of the audience. It was a scene for a painter, and I trust that some day it will be fitly perpetuated for the university.

"This struggle over, the committee could not be induced to report the bill; it was easy after such a speech for its members to pose as protectors of the state against a swindler and a monopoly. The chairman made pretext after pretext without reporting, until it became evident that we must have a struggle in the Assembly, and drag the bill out of the committee in spite of him. To do this required a two-thirds vote; all our friends were set at work, and some pains taken to scare the corporations which had allied themselves with the enemy in regard to the fate of their own bills, by making them understand that unless they stopped their interested opposition to the university bill in the House, a feeling would be created in the Senate very

unfortunate for them. In this way their clutch upon sundry members of the Assembly was somewhat relaxed, and these were allowed to vote according to their consciences.

“The Cornell bill was advocated most earnestly in the House by Hon. Henry B. Lord, afterwards for many years a valued trustee of the university, who marshaled the university forces, and moved that the bill be taken from the committee and referred to the committee of the whole. Now came a struggle. Most of the best men in the Assembly stood nobly by us; but the waverers—men who feared local pressure or sectarian hostility—attempted, if not to oppose the Cornell bill, at least to evade a vote upon it. In order to give them a little tone and strength, Mr. Cornell went with me to various leading editors in the city of New York, and we explained the whole matter to them, securing editorial articles favorable to the university; prominent among these gentlemen were Horace Greeley of the *Tribune*, Erastus Brooks of the *Express*, and Manton Marble of the *World*. This undoubtedly did much for us, yet, when the vote was taken, the old loss of courage was again shown; but several friends of the bill stood in the cloak-room, fairly shamed the waverers back into their places, and, as a result, to the surprise and disgust of the chairman of the Assembly committee, the bill was taken out of his control and referred to the committee of the whole, where another long struggle now ensued, but the bill was finally passed, and received the approval of the Senate in the form in which it came from the House, and the signature of Governor Fenton.”

Through the influence of Mr. Cook, a provision, which we must regard as just in its nature, in view of the previous grant of land to the People's College, was inserted. It was further provided, in case the People's

College could show within three months from the date of the passage of the charter of Cornell University, that it had upon deposit a sum of money, which, in addition to the amount already expended, should, in the opinion of the Regents of the University of New York, enable it to comply fully with the conditions of the act of the legislature, the provisional grant to it should take effect. Within the three months which were allowed, the trustees were required to show to the satisfaction of the Regents, that they possessed adequate college grounds, farm, workshops, fixtures, machinery, apparatus, cabinets, and library, not encumbered. In case the trustees of the People's College failed to comply with these conditions, which were to be determined by the Regents, the act conferring the land upon Cornell University was to be of full effect. In accordance with this provision, it was required that the trustees of the People's College should purchase within the specified time one hundred and twenty additional acres of land, and have funds sufficient for the erection of a new building to provide accommodations for two hundred and fifty students, also for the purchase of collections, apparatus, and library, the erection of shops, tools, machinery, etc., a sum of money equal to \$242,000, and to meet these purchases, it was provided that the trustees must deposit \$185,000 in one of the state deposit banks at Albany, within the time specified. The estimates upon which this sum was based were made by scholars able to judge of the cost of such collections and apparatus. As it appeared at the expiration of the period designated, that the trustees of the People's College had failed to comply with the law, the entire grant lapsed to Cornell University, according to the conditions imposed by the Regents, which required the People's College to raise only one-half of the sum which Mr. Cornell had so generously offered.

Mr. Cook had promised to endow the People's College. He had failed to do this, and after a serious illness his interest in fulfilling the terms of his offer ceased. The original friends of the college, who had labored so hopefully amid so many discouragements, abandoned gradually all expectations of its final success, and withdrew either from connection with it or from any active support. Among those who remained faithful to the original idea of the People's College to the last were Horace Greeley, Governor Morgan, and Erastus Brooks. It was seen by many of its friends that the dominating influence of the largest benefactor was already controlling disadvantageously the execution of the original plan and so modifying it, that its friends no longer felt an interest in the institution. Dr. Brown, its president, was active later in promoting legislation in Albany in behalf of Cornell University. The People's College died before its birth, and only a feeble preparatory department came into existence. Later the college building and grounds passed into the possession of Mr. Cook and formed the foundation of the present Cook Academy.

The legislature of New York, by a simple act passed at its session of 1863, accepted the national land grant, thus binding itself and the state of New York to comply with all the conditions and provisions of that act. On May 5, 1863, the legislature passed a law by which the comptroller, with the advice of the attorney-general, the treasurer, and the chancellor of the university, was authorized to receive the land scrip issued under the authority of the Land Grant Act, and to sell the same and invest the proceeds in any safe stocks yielding not less than five per cent. upon the par value. The money so received was to be invested by the comptroller in stocks of the United States or of this state, or in any other safe stocks yielding not less per annum

than the rate above mentioned, which amount was to remain a perpetual fund, a capital to be forever undiminished, except as provided for in the act of Congress. He was authorized to pay from the state treasury all expenses for the selection, management, superintendence, and taxes upon the lands, previous to their sale, and all expenses incurred in the management and disbursement of the money received therefrom, and all incidental matters connected with or arising out of the care, management, and sale of the lands, so that the entire proceeds should be applied without any diminution whatever to the purposes mentioned in the act of Congress. The act providing for the administration of the Land Grant Fund was followed on May 14, 1863, by the law transferring the income of this fund under certain conditions to the trustees of the People's College. Upon the failure of the trustees of this college to fulfill the requirements of the grant, a charter was given to the trustees of Cornell University. As regards the name of the university, the Hon. Andrew D. White has said: "While Mr. Cornell urged Ithaca as the site of the proposed institution, he never showed any wish to give his own name to it; the suggestion to that effect was mine. He would have called it the 'State College,' or the 'Central University,' or something of the kind. He at first doubted the policy of it, but on my insisting that it was in accordance with time-honored American usage, as shown by the names of Harvard, Yale, Bowdoin, Brown, Williams, and the like, he yielded. Let me say here that I never knew a man more free from self-seeking and ambition for distinction than the man whose name the university bears."

The first meeting of the trustees of Cornell University was held in the office of the secretary of the State Agricultural Society, in the State Geological Hall, in

the city of Albany, on the 28th day of April, 1865. Of the charter members there were present Ezra Cornell, William Kelly, Horace Greeley, Josiah B. Williams, George W. Schuyler, William Andrus, J. Meredith Read; and of the trustees *ex-officio*, Governor Reuben E. Fenton, Victor M. Rice, Superintendent of Public Instruction, and Francis M. Finch, librarian of the Cornell Library. In accordance with the charter, seven additional trustees were elected, viz.: Andrew D. White, Abram B. Weaver, Charles J. Folger, George H. Andrews, Edwin B. Morgan, and Edwin D. Morgan. Of the original charter members, Messrs. Ezra Cornell, William Kelly, and J. B. Williams had been trustees of the Agricultural College, and Messrs. Horace Greeley and Erastus Brooks, of the People's College. The most influential representatives of both the earlier colleges were thus united in the support of the new university. It was believed that opposition from these rival institutions would cease if the conflicting interests were thus harmonized. Mr. White had used his influence to prevent the division of the Land Grant fund, and been one of Mr. Cornell's most trusted advisers and supporters in procuring the charter of Cornell University. Mr. Erastus Brooks had been active in securing the charter of the Agricultural College, and had promoted the interests of the university by public advocacy in the *New York Express*, of which he was editor. Mr. George H. Andrews was selected from the Senate on account of his friendliness to the charter. Mr. Read had actively supported the charter outside of the legislature. Mr. Charles J. Folger, afterwards secretary of the treasury, had likewise used his influence in behalf of securing the land grant for the university. Mr. Edwin D. Morgan, United States Senator from New York, had been active in Congress in promoting the passage of the Land Grant Act.



REGISTRATION DAY AT CORNELL UNIVERSITY

WELL COMED

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Colonel Edwin B. Morgan of Aurora had been a member of Congress. Mr. Abram B. Weaver was for many years Superintendent of Public Instruction, and had exerted an honorable influence in behalf of popular education. At this meeting, the conditions, privileges, and powers of the act establishing the Cornell University, also the terms of the act bestowing the land scrip, were accepted.

The second meeting of the Board of Trustees was held on the 5th of September, 1865, and Mr. Cornell was elected president of the board, the Hon. Francis M. Finch secretary, the Hon. George W. Schuyler treasurer. A building committee was appointed, consisting of Messrs. White, Cornell, Kelly, Weaver, and Finch; and an executive committee consisting of Messrs. Andrus, Williams, Schuyler, A. B. Cornell, E. B. Morgan, Parker, E. Cornell, Alvord, and Greeley; and a finance committee consisting of Messrs. E. D. Morgan, Williams, Kelly, McGraw, and A. B. Cornell.

The third meeting of the Board of Trustees was held in the Agricultural Rooms in Albany, March 14, 1866. A report was presented, describing the satisfactory condition of the affairs of the university and making suggestions as to its future monetary policy. A report of the building committee was also made. Five hundred thousand dollars were put at the disposal of the building committee, and it was voted to commence at the earliest day consistent with the interests of the university the necessary building or buildings. The building committee and the executive committee were authorized jointly to procure by purchase or otherwise any building or buildings and land near the proposed location of Cornell University suitable for the purposes and uses of said university. It is evident that the site of the university had been selected at this time, but no vote appears in any records of proceedings by

which the present location was formally adopted. The late Judge Boardman stated that, in company with Mr. Cornell and eleven other gentlemen, he went over the land upon East Hill which might be regarded as adapted to the proposed university. The opinion of these gentlemen was, with the exception of Mr. Cornell, unanimously in favor of locating the university buildings upon the plateau west of the present site. This position was apparently Mr. Cornell's earliest choice, when he wrote that the new university would be situated but ten minutes from the post office. This location would have afforded ampler space for the erection of buildings, and avoided a large expense in grading. It would have afforded beautiful views and brought the university in those early days into more immediate connection with the village, and thus the great need of suitable accommodations for the students in the vicinity of the university would have been more satisfactorily met. At the entrance of the present university grounds stood the vast and impracticable structure known as the "Cascadilla," the source of whose mysterious architecture history has kindly veiled in obscurity. This building had been erected by subscriptions of the citizens of Ithaca, aided by a state grant, for the purpose of a water-cure establishment. At this time the interior was incomplete. Mr. Cornell was the largest stockholder in the Cascadilla Company. By finishing the edifice, it would be available for a large number of the faculty, who would arrive unprovided with residences, and for a considerable number of students. There were also several farm buildings at the north end of the present university campus, which might be used in connection with the proposed model farm. These considerations seem to have been decisive in determining the choice of the present site of the university.

At the fourth meeting of the trustees, held in the Cornell Library in Ithaca, October 21, 1866, Mr. Cornell was authorized to sell, at his discretion, 100,000 acres of land lately located by him in the interest of the university, at a price not less than five dollars per acre, and an able and elaborate report of the committee on organization was then read by its chairman, the Hon. Andrew D. White. In order to secure the expression of an impartial judgment in the choice of professors, and to avoid the risk of the introduction of a personal or prejudiced feeling in their election, it was voted that all officers of the university should be elected by ballot. A committee to select and report upon the names of suitable professors for the university, subject to the approval of the board, was appointed, consisting of Messrs. Brooks and White, and John Stanton Gould, whose name appears for the first time in connection with the proceedings of the board during this year as president of the State Agricultural Society and *ex-officio* trustee. A careful consideration of prominent men who might be considered for the distinguished office of president of the new university had been previously made, a record of which is still preserved. Correspondence respecting Governor John A. Andrew, the brilliant "war governor" of Massachusetts, exists. It is not known if personal representations were made to him, though it is possible. Other names on this list are those of the eminent educator, President Martin B. Anderson of Rochester University, and General H. W. Benham, of the regular army, and Dr. Henry Barnard, for many years the United States Commissioner of Education. Mr. Andrew D. White was unanimously elected president of the university. Mr. White gives the following account of his election to the presidency:

"Mr. Cornell had asked me, from time to time, whether I could suggest any person for the presidency

of the university. I mentioned various persons, and presented the arguments in their favor. One day he said to me quietly that he also had a candidate; I asked him who it was, and he said that he preferred to keep the matter to himself until the next meeting of the trustees. Nothing more passed between us on that subject; I had no inkling of his purpose, but thought it most likely that his candidate was a western gentleman, whose claims had been strongly pressed upon him. When the trustees came together, and the subject was brought up, I presented the merits of various gentlemen, especially of one already at the head of an important college in the state, who, I thought, would give us success. Upon this Mr. Cornell rose, and, in a very simple but earnest speech, presented my name. It was entirely unexpected by me, and I endeavored to show the trustees that it was impossible for me to take the place in view of other duties,—that it needed a man of more robust health, of greater age, and of wider reputation in the state. But Mr. Cornell quietly persisted, our colleagues declared themselves unanimously of his opinion, and, with many misgivings, I gave a provisional acceptance.”¹

The newspaper reports of this meeting state that provisions were made for the equipment of the university, so as to enable it to begin operations in the following summer of 1867, and for the erection of professors' residences.

The fifth meeting of the board was held in the Agricultural Rooms in Albany, February 13, 1867. At this meeting the first professors were nominated. The committee on the selection of the faculty reported, nominating Professor E. W. Evans, A. M., to the chair of mathematics; Professor William C. Russel, A. M.,

¹ A memorandum exists giving the names which had been submitted to Mr. Cornell for this important position.

to the chair of modern languages and as adjunct-professor of history. The professorship of mathematics was to include civil engineering, and the professorship of modern languages associate instruction in history.

At the following meeting of the board, held in Albany, September 26, 1867, four additional professors were elected, viz.: Burt G. Wilder, M. D., as professor of natural history; Eli W. Blake, professor of physics; G. C. Caldwell, Ph. D., as professor of agricultural chemistry; and James M. Crafts, B. S., as professor of general chemistry. The salary of professors was fixed at twenty-five hundred dollars.

At the seventh meeting of the board, held also in Albany, February 13, 1868, the following additional professors were elected: Joseph Harris, professor of agriculture; Major J. W. Whittlesey, professor of military science; L. H. Mitchell, professor of mining and metallurgy; D. W. Fiske, professor of North European languages; and the following non-resident professors: Louis Agassiz, professor of natural history; Governor Fred Holbrook, of agriculture; James Hall, of general geology; James Russell Lowell, of English literature; George William Curtis, of recent literature; and Theodore W. Dwight, of constitutional law. The term of office of non-resident professors, when not otherwise specified, was fixed at two years. A committee on a university printing-house was appointed.

At the eighth meeting of the trustees, held at the opening of the university, October 6, 1868, the remaining vacancies in the faculty were filled by the election of Charles Fred. Hartt as professor of geology; Albert S. Wheeler as professor of ancient languages; Albert N. Prentiss as professor of botany; Homer B. Sprague as professor of rhetoric; and John L. Morris as professor of mechanical engineering and director of the shops.

CHAPTER VI

THE MANAGEMENT OF THE LAND GRANT; MR. CORNELL'S SERVICES

MR. CORNELL'S noble offer to the trustees of the State Agricultural College relieved that institution from impending bankruptcy, which hung over it at the time of their meeting in Rochester. The proposition received the hearty and grateful approval of the board. A committee of five was appointed to confer with the citizens of Ovid and obtain from them, if practicable, an approval of the transfer of the college property to Ithaca, and their co-operation in procuring the necessary legislation to render Mr. Cornell's offer effective, and to sell the farm and college building to the state for a soldiers' home or for some other object of public benevolence.

At a meeting then called, which met in Albany, to which a large number of the friends of education had been invited, the sentiment of all present was opposed to any division of the land grant, and they decided to petition the legislature to make a gift of the whole 990,000 acres of land to one institution, rather than to divide it among the separate colleges of the state.

In a letter to the chancellor of the University of Missouri, to which reference has already been made, Mr. Cornell described the change in his views of this question:

"When the friends of the People's College at Havana and those of the State Agricultural College at Ovid were each striving to secure a grant of the New

York 'College Land Scrip' for their respective colleges, I advised a compromise of the question by a division of the fund between them, by which means I supposed each college would secure an endowment of a half-million of dollars, a sum that I regarded at the time as ample for all purposes connected with a fully equipped college. My views, however, were wisely combated by other friends of education (among whom President White was conspicuous), and the policy of concentration of resources was adopted by the legislature, and the proceeds of the 990,000 acres allotted to New York were bestowed upon a single institution, conditioned upon the bestowal of half a million dollars from other sources upon the same institution; and with such resources, more is required to enable the trustees to place the faculty of the institution in the possession of such facilities as the best interests of the students demand.

"The experience of the past five years has proved the error of my views then, and nobly vindicated the wisdom of those who said, 'Let us concentrate our resources and unite our efforts, and build up a university that shall be worthy of the name *University*, and worthy of the noble gift that Congress has bestowed upon the state in the aid of practical education.'

"I now say to you, my noble friend, as my friends then said to me, concentrate, concentrate; bring together all the resources the state can spare for a higher education, administer them wisely so as to produce the best results, and then what you lack call on your rich men to give you, and go forward and build up such a university as the growing wants of your great state demand."

After the charter of Cornell University had been formally granted, the difficulty of realizing any sum

commensurate with the magnificent amount of land received from the state, faced the trustees. It was then that the sagacity of Mr. Cornell and his great devotion to the cause which he had espoused were fully manifested. He surrendered himself and all his powers during the nine years of his life which remained, to the one grand thought of realizing the highest possible proceeds from the sale of this land. During the year 1865, most of the Northern States received their land scrip, which was practically a certificate authorizing the selection of the amount of land specified in the scrip from any of the public lands of the United States not mineral, and not otherwise disposed of. The act of Congress provided that in no case should any state to which land scrip was issued be allowed to locate the same within the limits of any other state or of any territory of the United States, but that their assignees might thus locate said land scrip upon any of the unappropriated government lands which were subject to sale by private entry. Most of the states, in order to realize immediately the value of the national grant, sold the land scrip issued to them in great blocks to speculators. In consequence of this, the public lands, whose nominal value was \$1.25, could be obtained for the price at which the scrip was sold. The amount realized from this sale was in some cases as low as forty-one cents per acre, and the entire amount of the national land grant to all the states, amounting to 9,597,840 acres, realized only \$15,866,371.39, an average of \$1.65 per acre; of all the states, only California, Wisconsin, Tennessee, Kansas, Florida, Iowa, Minnesota, Michigan, and New York realized over \$1.25 per acre. While the gift to New York was a little more than ten per cent. of the entire grant, through the sagacity and devotion of Mr. Cornell and the wise administration of Mr. Henry W. Sage, the

grant to the state of New York has realized about forty per cent. of the entire sum resulting from the national bounty. Had the vast grant bestowed upon the state of New York been thrown upon the market at once, embracing as it did one-tenth of the entire land grant, the sacrifice on the part of the various states, to which this legacy had been entrusted by the national government for educational purposes, would have been far greater. Mr. Cornell made a careful estimate of the amount of land acquired each year by actual settlers from the national government. He saw that if the states could retain their lands for the present until the demand for desirable government land had been exhausted, the price of the land must inevitably increase in value. With this object in view he prepared a circular letter, which he addressed to the various institutions which had received the grant, and in certain cases to state authorities, urging them to withhold their scrip from the market.

In his report of 1864, the comptroller stated that he had received the land scrip of the state of New York, consisting of 6,187 pieces of 160 acres each, amounting to 999,000 acres of land. In 1865 he reported that, after consultation with the officers designated in the act of the legislature directing a sale of the scrip, the price was fixed at eighty-five cents per acre, and the scrip advertised for sale. In the course of a few months sales were made to the extent of 475 pieces, equal to 76,000 acres, at the rate of eighty-five cents per acre, except upon the first parcel of fifty pieces sold. A rebate of two cents per acre was allowed in consideration of certain advantages offered in the matter of advertising in the northwestern states. The total amount received on all the sales was \$64,440. He reported that the sales of the scrip had recently almost entirely ceased, in consequence of other states reduc-

ing the price to a much lower rate than that at which it was held by this state. Therefore it became an important question whether the price should also be reduced here and a sacrifice made to induce sales, or the land be held as the best security for the fund until the sales could be made at fair rates. The comptroller himself favored the latter course. Mr. Cornell said: "After the passage of the act chartering Cornell University, finding 5,712 pieces of scrip in the possession of the comptroller, representing 913,920 acres of land, I turned my attention to the question of converting this scrip into the largest sum of money practicable in a reasonable time. My investigation of the subject led to the conviction that the best policy was for me to purchase the scrip of the state, and locate the land and sell the same as opportunity offered, for the interest of the university." In 1866 the comptroller reported upon the college land scrip: "No sales were made during the year ending September 30, 1865. Since that date, with the concurrence of all the officers named in the act providing for the sale except the chancellor of the university, who is absent from the country, a sale of 100,000 acres has been made to the Hon. Ezra Cornell for \$50,000, for which sum he gave his bond properly secured, upon the condition that all the profits which should accrue from the sales of the land should be paid to Cornell University, which he had so munificently endowed." His contract for this purchase was dated November 24, 1865. Of the 625 pieces of scrip thus purchased, twenty-five pieces were located in Kansas, fifty pieces in Minnesota, and the balance in Wisconsin, all, or nearly all, on good farming lands.

In March, 1866, he sought to unite the authorities of the Illinois Industrial University and those of the University of Kentucky in an effort to secure the ex-

emption from taxation of all lands granted by the United States government for educational purposes.

On April 10, 1866, the legislature passed an act to authorize and facilitate the early disposition by the comptroller of the land scrip donated to this state by the United States. Mr. Cornell thereupon opened negotiations with commissioners of the Land Office for the purchase of the balance of the scrip remaining in the possession of the comptroller, amounting to 5,087 pieces, in July, 1866, which resulted in an agreement dated the 4th of August, 1866.

In order that the gift to New York should not be wasted, Mr. Cornell made a contract with the people of the state of New York through their commissioners of the Land Office, which was sanctioned by the legislature, by which he agreed to purchase all of the agricultural land scrip then in the possession of the state of New York, consisting of 5,087 certificates, each representing 160 acres, for which he promised to pay thirty cents per acre, and to deposit stocks or bonds for an amount equal to an additional thirty cents per acre, the estimated market value of the land scrip at that time. Mr. Cornell also entered into obligation at the same time and by the same instrument, with ample security, to locate the lands with the scrip thus purchased, in his own name, and to pay the taxes and all expenses of such location, and to sell the land in twenty years and to pay all the net proceeds over and above the expenses and the sixty cents an acre above referred to, into the treasury of the state of New York. The amount originally received for the land scrip was to constitute the College Land Scrip Fund, and the amount realized from the sale of lands, over and above sixty cents per acre and the expenses, was to constitute a separate fund to be called the Cornell Endowment Fund, the income of which should be de-

voted forever to Cornell University. Mr. Cornell offered to purchase at once 100,000 acres of land at the highest market price at that time, and to give bonds for the faithful execution of his trust, and for the payment to the university of every dollar which, in the future, he might be able to obtain from the sale of the land.

Mr. Cornell sought to induce other wealthy men to purchase 100,000 acres of land at five dollars per acre for this benevolent purpose, and to wait for a return of their money until at some time in the future, when the lands would bring more than five dollars. This would have been a generous advance, with the land as security, and would have secured an immediate fund of half a million dollars for the university. He also organized and had incorporated the New York Lumber, Manufacturing, and Improvement Company, the purpose of which was to purchase the most valuable unoccupied water-power in the West, and a town site of a thousand acres, with a view to manufacture lumber, the sole object of which should be to enrich his beloved university. The proposed town was to be located at Brunett's Falls, the great water power of the Chippewa River in Wisconsin.

The energy with which Mr. Cornell prosecuted his great purpose, and the hardships which he voluntarily assumed in locating the forest lands of the university, are illustrated in a letter which he wrote August 24, 1866:

"I have just returned from a trip of three days in the pineries of the Chippewa, sleeping two nights in such rude camps as we could construct of pine boughs, by the application of half an hour's labor. Yesterday morning we were roused from our slumbers by the howling of a pack of wolves of a dozen or more, counting by the noise and varying voices. They remained



OBSERVATORY

with us an hour and then moved slowly on until their howl was lost in the distance."

When this arrangement was reached, by which Mr. Cornell assumed the vast task of locating the lands, the proceeds of which would constitute the future capital of the university, he felt a sense of relief that he was permitted by the state to carry out the views which commended themselves to his judgment, and which he fondly believed would secure forever the prosperity of the university that he loved. On the evening of that day he wrote: "I now feel for the first time that the destiny of the university is fixed, and that its ultimate endowment will be ample for the vast field of labor it embraces, and, if properly organized, for the development of truth, industry, and frugality. It will become a power in the land, which will control and mould the future of this great state, and carry it onward and upward in its industrial development and support of civil and religious liberty, and its guarantee of equal rights and equal laws to all men." The man who saw in the realization of his hopes no personal gain or glory, but only a contribution to truth and knowledge and the support of civil and religious liberty and equal rights, had certainly a noble and prophetic vision of the highest ideals which society can reach.

At this time, his highest estimate of the proceeds of the national land grant was less than three millions of dollars, even assuming a large success in carrying out his plans. He proceeded with the location of the land, 4,000 acres of which were located in Kansas, 8,000 acres in Minnesota, and the balance, about 513,920 acres, in Wisconsin. Of the amount located in Wisconsin about 400,000 acres were selected as fine timber lands. The labor incurred in this vast undertaking for the good of the university which he had at heart cannot be over-

estimated. It was necessary for him to spend a whole summer in the wilderness; to employ skilful and experienced assistants; to encounter great exposure and fatigue; and to spend large portions of his private fortune in surveying, locating, and paying taxes upon these lands during a long series of years. The work was done as systematically as though the resultant gains were to be his own private possession.

Mr. Cornell's faith would have led him to proceed further in the location of lands, and in enlarging his personal responsibility, for the cost of retaining them until they could be profitably disposed of. The trustees of the university, however, realized that Mr. Cornell's fortune, large as it was, would be inadequate to meet the demands of the task which he had undertaken. The act of Congress permitted the location of only one million acres of government land in any one state. The entries of land based upon the college scrip had been filled in three great states, which afforded the promise of most immediate returns, viz., in Wisconsin, Michigan, and Minnesota. The balance of the scrip could not, therefore, be located in these states, and it would be necessary to select lands further west or in the southwest. Such a division of the university domain would render its efficient management difficult, and make it impossible to concentrate attention upon the administration of the lands which had already been located. College land scrip had been selling in the two preceding years for less than sixty cents per acre. In view of these facts, the trustees united in a request to the State Commissioners of the Land Office to authorize Mr. Cornell to sell the balance of the college scrip at not less than seventy-five cents per acre, or to locate it as he might deem best. This petition was signed December 1, 1867, and Mr. Cornell's agreement with the state was modified in accordance therewith on

the 18th of the same month. Mr. Cornell succeeded in inducing one of the largest dealers in college land scrip to co-operate with him in withholding the scrip from the market, and to dispose of it to customers only so fast as it should be needed for location. In this manner Mr. Cornell was enabled to dispose advantageously of 625 pieces of scrip, representing 100,000 acres of land, at ninety cents per acre, and 1,125 pieces, or 180,000 acres of land, at one dollar per acre, on April 13, 1868. On December 15, 1869, the remaining 637 pieces, representing 101,920 acres of land, were sold at eighty-six cents per acre.¹ Mr. Cornell was thus enabled to dispose of all the remaining land scrip for \$357,651, realizing about ninety-four cents per acre. For all his services in effecting these sales he received no compensation, and was content to see these profits placed to the credit of the university. Minor sales were made at the earnest entreaty of all the trustees of the university, Mr. Cornell remaining inflexible in his opinion that the retention of the land would add still further to its value. But the trustees, realizing that the cost of maintaining the university, even upon the limited scale on which it was inaugurated, exceeded its income, expressed the belief that a moderate addition to the resources of the university at that time would be of greater utility than a much larger addition at a later period; that it would enable the institution to grow in departments where immediate growth was extremely desirable; and that there would remain after such sale, if reasonable expectations were fulfilled, an ample endowment from the profits of the land unsold for all the future needs and requirements of the university. In this request the high officers of the state, who were *ex-officio* trustees, including the governor and comptroller, joined. About this time an article

¹ Senate documents of the State of New York, No. 103, January, 1874.

appeared in a leading paper, in a city in the central part of the state, charging Mr. Cornell with a vast land speculation in securing control of the university lands. His acquisition of the lands was said to be made with the prospect of acquiring from their sale from twenty-five to thirty millions of dollars. Mr. Cornell's statement was quoted, that the university will probably receive two millions of dollars from these lands, and the question asked what becomes of the twenty-three millions and over of the balance which will be realized. An unwarranted item in a local newspaper, stating that the value of these lands was sixty dollars per acre, was the basis of this extraordinary estimate of profits to Mr. Cornell. Mr. Cornell's purpose in incorporating a company, the object of which was to administer these lands, with special facilities for manufacturing lumber, was stated to be to dispose of them to the company for a limited sum, and secure for his family the profits, amounting to twenty-three millions of dollars. Mr. Cornell's gift of half a million of dollars to endow the university was in effect fraudulent, as he had never paid the sum, but only deposited stock of the Western Union Telegraph Company to guarantee such payment. This effort to secure, by a permanent article in the Constitution of the state, a provision which would render sacred these funds which the state had received from the national government, and which it had solemnly pledged itself to maintain at their par value, making up all losses which might arise in its administration, was stated to be one of the most stupendous jobs ever originated against the rights of the agricultural and mechanical population of the state. Mr. Cornell, in a dignified letter, reviewed the charge and vindicated the nobility and purity of his motives, as well as his generosity. He showed that every negotiation for the sale of the land had been undertaken in

the interests of the university, and that the sale had yielded for the university far more than it otherwise would have done; that these sales had been authorized by the Land Office of the state, and all returns had been paid over to the state, in many cases without passing through his hands; that all the land scrip had been sold or accounted for; and that, instead of making a charge against the state for locating the lands payable out of this fund, he had incurred an expense of more than \$200,000 in selecting lands, fees for entering the same, taxes, interest, and the various expenses that were involved in such undertaking, and that the state was in no wise responsible for what he had expended. If repayment were ever made to him, it would come from the increased profits upon the sale of the land. But the actual market value of the land when donated to Cornell University was secured to the state by his bond. "Feeling a deep interest in the question of practical education in agriculture and the mechanic arts, for which this fund was voted by Congress, I volunteered to undertake to create a fund three or four times as large as that which the state could produce for the same object that Congress intended, and, at my own request and expense, without charging a single dime to anybody for my services. And this I undertook for the Cornell University only after the friends and founders of other colleges declined to join a united effort, in which I proposed to be responsible for one-tenth of the risk and expense of creating this larger sum for the endowment of those colleges. This is all there is of it; this is the sum total of my offending. Whether it will realize as much or more than I anticipated, whether it is three millions or thirty millions, it will be all paid over to the comptroller of the state of New York for the purposes specified in the agreement, and the state of New York will appropriate the

proceeds of the fund as stipulated in the bond, whether the fund is protected by the organic law of the Constitution or not." Misconceptions of his motives and ingratitude for the services which he had rendered the state did not induce Mr. Cornell to swerve from his generous and self-sacrificing purpose. Of Mr. Cornell's answer to this charge, the Hon. William Kelly wrote: "I cannot refrain from expressing my gratification with the style and matter of your letter to the *Rochester Union*. It is so simple in style, so direct, so able, so conclusive, as to fully meet my hopes. I am delighted with it. No sensible man will again assail you as to your management of the finances of the university or your motives of action. Your vindication from the slanderous charges is complete and final."

The unselfishness of Mr. Cornell's services in behalf of the university had not attained a final vindication with this letter. In 1873 a bill was presented in the legislature to facilitate a settlement between Ezra Cornell and the state with reference to the college land grant. Charges were made in the debate, by a political opponent of Mr. Cornell, of breach of trust in the execution of his contract with the state, of using the power entrusted to him to add to his own wealth, of not depositing with the state comptroller adequate bonds and securities, and that the university as administered did not comply with the conditions of the law under which it was established. Mr. Cornell requested promptly that a committee be authorized by the legislature, and appointed by the governor, the Hon. John A. Dix, a majority of which should consist of members of the party opposed to him in politics, to investigate the whole question; whether the laws for the sale and disposition of the college lands had been complied with, whether the securities received for its

sale were adequate, what contracts had been made and upon what terms, the value of the lands held by Mr. Cornell in behalf of the university, what charges had been made for his services, whether the law of Congress had been complied with by the university, and to report upon the present condition of the same. A commission of the highest character was appointed to conduct this inquiry, consisting of the Hon. Horatio Seymour, former governor of the state, the Hon. William A. Wheeler, later vice-president of the United States, and the Hon. John D. Van Buren. The report of this commission, which was presented after a most thorough and comprehensive investigation, was a noble tribute to Mr. Cornell's integrity, his lofty purpose, his almost unparalleled generosity and sacrifice in behalf of the university, as well as to the sagacity which had reserved this part of the national land grant and made it possible to realize, as no other state had done, the objects of the law. Changes in detail of the form of the financial relations of the university to the state were suggested, with the view of the absolute protection of the land grant fund, and, at the same time, securing facility of administration in the sale of the land by Mr. Cornell. The commission was divided upon the question whether the state or the university was the owner of the proceeds of the sales of lands above the sum at which it had been purchased by Mr. Cornell. The Hon. Horatio Seymour, the minority of the commission, held that all such proceeds constituted a personal gift of Mr. Cornell to the university, and were not subject to the conditions of the act of Congress, a view afterward sustained by the United States Supreme Court.

Mr. Cornell's adherence to his conviction of the final value of the land to the university was often not received kindly by members of the Board of Trustees,

who desired to realize at once the whole of the endowment and did not share Mr. Cornell's faith. One of the most influential trustees, weary with the apparently hopeless struggle against debt and the delay in realizing the beautiful hopes with which the university opened, wrote, December 5, 1872: "Better a million added to our endowment now than three millions five or ten years hence. The only way is to go on developing rapidly, showing that we are strong and progressive and do not ask favors before the favors come. Then men think it an honor to give. We must go ahead promptly. We must show that we are not standing still; that we are not looking forward vaguely; but that we know what we want and are marching straight toward it. Then gifts will come. Then it will be worthy of any man's ambition to aid in developing our plans. To push on vigorously now is to conquer. To work slowly until our active men get sleepy and easy-going is not what we ought to do. I want to see the Cornell University the foremost in the land during our lifetime; it can be so, but only by prompt, vigorous strengthening and extension. Most earnestly, I say, if you can lop off the lands at a million and a half, or even less, I think it wise policy to do it. The simple reason why we do not call Tyndall and other distinguished non-resident professors is because we cannot afford it. Our other necessities have forced us to cut off to a large extent that part of our original scheme. Now is the time to go on promptly with our policy. Hope deferred maketh the heart sick. Cure us by allowing us to spring ahead and to go on vigorously and promptly, and let our university soon stand beside the greatest universities of the world, and for the conflict in which we shall triumph." Had the course here advised been adopted, it would have limited the growth of the university forever, and it would have



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taken its place in the ranks of the small and imperfectly endowed colleges. Mr. Cornell possessed that quality of mind that could wait for results, having faith that the future would realize his far-seeing plans.

While the gift to New York was only a little more than ten per cent. of the entire grant, through the sagacity and devotion of Mr. Cornell and the wise administration of Mr. Henry W. Sage the grant to the state of New York has realized about forty per cent. of the entire sum produced by the national land grant act. In states the population of which was small and the land grant badly managed, the income of the sum realized was hardly sufficient to support a single professor in agriculture. The state of Rhode Island obtained about \$50,000 from its grant, New Hampshire \$80,000, Nebraska \$39,504, and the great state of Ohio only \$342,450.¹ Cornell University has realized up to the present time an average of over seven dollars per acre for its lands. Only a few states have obtained an approximate sum. California received \$5.14, Kansas \$5.57, Minnesota \$4.39, Iowa \$2.70, Michigan \$2.50, and all other states less than \$2.00 per acre for their lands. This is certainly a splendid tribute to the vision of one man. It was natural that the utter inadequacy of these sums to realize in any considerable degree the purposes of the land grant should cause repeated efforts to be made to induce Congress to increase the fund which had been originally bestowed. There were earnest advocates in Congress of such an increased grant, but the enormous indebtedness resting upon the country at the close of the war made it difficult to secure action to appropriate the income of the sale of public lands, which was needed to pay the

¹ See *History of the Agricultural College Land Grant of July 2, 1862*, by S. D. Halliday and W. A. Finch. Ithaca, 1890.

national debt. Such a bill was introduced by Senator Morgan of New York, in 1872, but failed to pass, and it was not until the passage of the so-called Hatch Act in 1887 that any considerable addition was made to the funds of these colleges.

CHAPTER VII

THE FIRST PRESIDENT OF THE UNIVERSITY, THE
HON. ANDREW DICKSON WHITE

THE Hon. Andrew D. White, LL. D., the first president of the university, was born in Homer, N. Y., November 7, 1832. After spending one year in Hobart, he entered Yale College, where he spent the last three years of his college course, graduating in the class of 1853. Mr. White won distinction in a class noted for its brilliant members. He received prizes in English essays, and was one of the editors of the *Yale Literary Magazine*. Upon graduation, he obtained the De Forest Gold Medal, one of the most coveted honors of an undergraduate course, for an oration upon "The Diplomatic History of Modern Times," thus prefiguring the field to which his life was to be devoted. This interesting address was reprinted in the *Era*, October 14, 1872.

Among his classmates were many who afterwards became distinguished, including E. C. Stedman, the poet; Henry C. Robinson, attorney of Connecticut; Bishop Theodore F. Davis of Michigan; Senator Gibson of Louisiana; Wayne MacVeagh, United States Attorney-General and minister to Italy, and George Shiras, judge of the United States Supreme Court. After graduation he went abroad, where he spent three years in travel and study. He resided longest in Paris, where he heard lectures at the Sorbonne, pursuing with ardor the study of French history, in which subject his lectures have always possessed an especial interest. He was a member for a few months of the

official family of the Hon. Thomas H. Seymour, United States minister to St. Petersburg, during the exciting events associated with the Crimean War, where he obtained some glimpse of diplomatic affairs and of political and court life. In 1855 and 1856 he attended lectures upon history in the University of Berlin. He also traveled extensively through Europe. In intervals of other work he inspected the archives of France, and studied on the spot nearly every great event of the Revolution. He also made several journeys through various parts of France, including excursions on foot through Picardy, Normandy, Brittany, Touraine, and the borders of La Vendée, during which he conversed with many who had an intimate knowledge of those great events. He says: "While thus satisfying my love for a study which has fascinated me, I have hoped to do something to counteract the influence of prejudiced English historians and the American dilutions of their works, and to give that view of the struggle which, so far from disheartening young men, will strengthen their faith and hope."

Upon Mr. White's return in 1856 he spent a year in advanced study at Yale. In the following year he was elected professor of history and English literature in the University of Michigan, which position he held from 1857 to 1862. His large business interests recalled him to Syracuse, where, after a second period of foreign travel, he resumed his residence. He was twice elected a state senator from that district, serving from 1864 to 1867. His connection with the University of Michigan was, however, from this time merely nominal; after giving up the regular duties of his professorship he occasionally delivered a few lectures. His residence there was a most fruitful period in his educational experience. Michigan University was at that time under the intelligent direction of President

Tappan, one of the wisest and most progressive administrators whom this country has produced. The independence of a state university, which had received enduring form under the moulding hand of the first superintendent of instruction, the Rev. John B. Pierce, although hampered at times by political interference, attracted Mr. White. President Tappan's views of the relation of the university to the school system of the state, as the crown of higher public education, were exemplified in the organization of the schools. President Tappan maintained that scientific learning had a right to compare, in modern education, with ancient learning. Views which Mr. White later incorporated into the constitution of Cornell University were seen here in practice, where their effects could be measured. President White himself said in an address in Ann Arbor that Cornell was the daughter of Michigan University. Mr. White, as chairman of the committee on literature in the Senate of New York, was an efficient agent in aiding his colleague, Mr. Ezra Cornell, to secure the Land Grant for this university. Indeed, we may say that Mr. White made definite the plans of Mr. Cornell, and that the original purpose of the latter to found an industrial institution was expanded under Mr. White's advocacy, so as to include a university. Mr. White's strong faith, that the one great opportunity for the establishment of a university in the state of New York worthy of the name had come with the National Grant, and that, by preserving this gift in its integrity, the cause of higher education would be promoted and its success achieved, determined Mr. Cornell's views upon this important subject.

Mr. White was elected a trustee of the university at the first meeting of the Board of Trustees held April 28, 1865. At the request of Mr. Cornell he drew up a proposed plan of organization, which was presented to

the trustees on October 21, 1866, at the same meeting at which he was elected president of the new university. About this time the directorship of the School of Fine Arts at Yale was offered to Mr. White, but declined.

Mr. White's influence during his term of senatorial service was of great value. In the discharge of his duties he was independent, and brought a knowledge of the world and a study of political institutions to bear which was unusual in legislation. His influence in extending the system of normal schools throughout the state was felt, and one or two addresses which he delivered, in which he discussed national questions, were vigorous defenses of Republican principles. The address in which he advocated withdrawing the National Grant from the People's College and bestowing it upon Cornell University was an able defense of the proposed legislative action, and exerted a marked influence. After the close of his duties as state senator, President White went abroad in the summer of 1868 for a few months in order to execute numerous orders from the trustees for the purchase of scientific apparatus, books, and maps for the university, and also to visit various schools of applied science. During this visit Professor Goldwin Smith decided to come to Ithaca to reside during his proposed visit to America, and Dr. James Law was secured as professor of veterinary science. Mr. White retained his residence in Syracuse for the first four years after the opening of the university, until the completion of the president's mansion on the university grounds in the autumn of 1872. During this time, while residing in Ithaca, he occupied rooms in Cascadilla Place, which was the center of official as well as of social life. His diversified interests often called him away from the university in those early years, and the immediate administration

devolved in his absence upon the vice-president. In 1871 President White was appointed by President Grant one of the United States commissioners to San Domingo to report upon the expediency of the annexation of that island; in 1876 he received a leave of absence from the university for the purpose of visiting Europe, and was absent until the autumn of 1878, during which year he was a commissioner to the Paris Exposition, and, at its close, received the cross of Commander of the Legion of Honor. His return was welcomed by the entire student-world by processions and an address. President White remained in Ithaca until the spring of the following year, when, in April, he was appointed as envoy extraordinary and minister plenipotentiary to Germany. He sailed from New York, May 7, 1879. Mr. White was well qualified to represent the United States at a foreign court. His acquaintance with European history and life and his social gifts attracted to his house the most accomplished scholars and artists of the capital, and his broad and genial sympathy with literary men made his residence a center of charming social intercourse and hospitality. In the autumn of 1881 President White again assumed the discharge of his duties as president of the university and resided continuously in Ithaca until the date of his resignation, in June, 1885.

The early interest of President White in historical study, which was exhibited during his college life, has continued until the present time. His favorite department is the history of European culture since the dawn of the Renaissance. He has devoted most attention to French and German history, especially to the period of the Protestant Reformation and the French Revolution. He has collected a rare and extensive library, possibly not surpassed in America, upon these periods. The formative ideas which determined the early char-

acter of the university are largely due to President White. He was fertile in theories, and active in investigating various courses of study and systems of education both in this country and abroad. To him belongs undoubtedly the credit of advocating, even if he did not originate, many of the views which prevail in modern university education. Among these we may mention the importance of history, especially of American history, and of modern languages, both as a means of culture and for scientific investigation; he has advocated instruction in sociology, and in free trade and protection he has urged that both sides shall be represented by their ablest advocates; also maintaining the equal value for intellectual training of parallel courses of study, and the dignity and importance of industrial education to the nation. He has insisted upon the superior value of Latin for the general student above Greek. He has also been an earnest advocate of the improvements of the secondary schools throughout the state. Freedom in the choice of studies has been a prominent characteristic of the university from the beginning. The solution of the conflict in regard to classics he found in the establishment of definite parallel courses, such as have been adopted in this university.

If a certain native disinclination to the details of executive duties, an impetuosity and personal element in the solution of vital questions, were manifest in administration, so many beautiful and generous traits were revealed, and so much personal thoughtfulness, as to preserve the enduring affection of his colleagues. He loved to gather his friends in his home, which was the center of delightful literary and social intercourse; his large library was open to the use of the poorest students without hesitation, and there was no case of distress in the university world that did not appeal to him.



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The position of dean of the School of History and Political Science was offered to President White upon its establishment in 1887, but he declined the honor. In 1892 he received again the honor of a foreign diplomatic position. President Harrison appointed him minister to the court of St. Petersburg, which position he filled for two years. In 1896-97 he was a member of the Venezuelan Commission, to which he was appointed by President Cleveland. In 1897 he was appointed by President McKinley as ambassador to Germany. He resigned this position in November, 1902, upon reaching the age of seventy, in pursuance of a purpose previously formed. During his period of residence at the German court Mr. White enjoyed the friendship of the Emperor, and received, upon taking leave, a valuable gift as an expression of the imperial favor.

He is a regent of the Smithsonian Institution at Washington, and has been president of the American Social Science Association, and of the American Historical Society. His published works consist of numerous essays, addresses, and speeches; also of *The Warfare of Science* (1876), and *History of the Warfare of Science with Theology in Christendom* (1897), an elaborate work in two volumes.

Dr. White was president of the American Commission of the Peace Congress at The Hague, in 1899, and commissioner of the state of New York at the Paris Exposition of 1878. He received a tender and grateful welcome from the members of the numerous classes who returned to their reunions at Commencement, 1904, most of whom had studied here during his presidency. All former students and friends of the university are grateful that he is to take up his residence here again, where his presence, his friendship and counsels contribute to the academic life. Mr.

White has presented to the university numerous works upon art, medallions, and manuscripts. Upon the completion of the Sage Library, Mr. White transferred to it his own valuable historical library, consisting of 19,300 volumes. In order to secure the development of the studies of history and political science, in which he was especially interested, he made as a condition of this gift the establishment and support by the university of a School of History and Political Science, and also that it should maintain fellowships in these subjects and defray the salary of a librarian of the White Library and the cost of the publication of a catalogue of the library.

CHAPTER VIII

FUNDAMENTAL IDEAS

1. THE LIBERAL EDUCATION OF THE INDUSTRIAL CLASSES.
2. THE EQUAL RECOGNITION OF THE CLASSES ; MODERN LANGUAGES AND SCIENCE AS INSTRUMENTS OF CULTURE.
3. THE ELECTIVE SYSTEM.
4. NON-RESIDENT LECTURES

AT the second meeting of the trustees, held in Albany, September 5, 1865, Mr. Andrew D. White was appointed a committee to draft by-laws. There is nothing to show that his election to the presidency was at this time contemplated, although it is possible, and under this modest title of "by-laws" the elaborate report on organization was included. At the fourth meeting of the trustees, held in the Cornell Library, October 21, 1866, this report was presented. As Mr. White was unanimously elected president of Cornell University at this meeting, his report has an authoritative value as embodying the fundamental ideas which, in his judgment, should determine the form and scope of the new university. While criticising at times established views, it defended the plan of instruction which the new institution of learning was to illustrate. In surveying these views after the lapse of a quarter of a century since the opening of the university, and in comparison with the methods and subjects of instruction which prevailed at that time, we must recognize their freshness, their catholicity, their sympathy with all learning and, at the same time, their powerful advocacy of the new education, which gave prominence to the natural

sciences, the study of history and the fine arts, as well as of applied science. There was also an appreciation of past learning, such as we might expect from a scholar whose special study had been directed to the history of culture, and the forces which constitute modern society. Elective studies in modern languages and in science, in place of classical and mathematical, had been introduced in various institutions. Much that was announced as to be tested in the new university has since become characteristic of modern education. Much that was incorporated in the original plan had been the subject of solitary advocacy, and even of agitation. The success of the ideas which lay at the basis of the university was due to the sagacity with which the importance of the new branches of study, and the demands of modern life upon a new institution of learning, were recognized. To embody in a new university new views of education was far easier than to modify the conservative courses of study which were enthroned in the older institutions. Some features in the proposed university were personal to the author of the plan of organization, others had been tested successfully in institutions of narrower scope. The union and equality of various branches of study in classical and modern literature and science in one university, and a recognition of the equal importance in society and modern life of applied science, were the striking features in the new university. In the national and state legislation which formed the charter of the university, and in the views of the founder, two convictions were prominent: first, the need of thorough education in various special departments, among them the science and practice of agriculture, of industrial mechanics, and kindred departments of study, to realize which institutions should be furnished with every appliance for discovering and

diffusing truth,—that such instruction should not be subordinate to any other, and that the agricultural and industrial professions should be regarded as the peers of every other. At the same time, the liberal education of the industrial classes in the several pursuits and professions in life should be included. The second of these convictions was that the system of collegiate instruction, now dominant, leaves unsatisfied the wants of a very large number, and perhaps of the majority of those who desire an advanced general education; that although there are great numbers of noble men doing noble work in the existing system, it has devoted its strength and machinery mainly to a single combination of studies, into which comparatively few enter heartily; that, where more latitude in study has been provided for, all courses outside of the single traditional one have been considered to imply a lower caste in those taking them. General education has, therefore, lost its hold upon the majority of trusted leaders of society, and become underestimated and distrusted by a majority of the people at large, and, therefore, neglected by a majority of our young men of energy and ability. To meet this need it was held that colleges of wider scope should be founded; that no single course should be insisted upon for all alike; that various combinations of studies should be provided to meet the need of various minds and different aims. It was proposed to divide the university into two great parts, the first of which should comprise departments devoted to special sciences and arts. This was to include agriculture, the mechanic arts, civil engineering, commerce and trade, mining, medicine and surgery, law, jurisprudence, political science and history, and education. It is noticeable that the departments of law and medicine are included in the original plan, and that jurisprudence is not included under the depart-

ment of law, but was evidently to be treated historically, and is, therefore, grouped with history and political science. The second division was to embrace science, literature, and the arts in general, and was to include a "first general course," corresponding to the classical course in other colleges; a "second general course," in which Latin was to be retained and German substituted for Greek, corresponding to the course which bore later the name of the course in "philosophy." The "third general course" embraced French and German instead of Latin and Greek. At this time few institutions exalted English literature and philology to rank as a study equal to that of foreign literature, and no provision was made for it. To these courses a scientific course and an optional course were added. The latter course was practical, and permission was granted to properly qualified students to choose such courses of study as they were prepared to pursue, "in order to give to the student full and entire freedom in the selection of studies, and freedom everywhere equal to that which prevails in the universities of continental Europe."

A committee of the trustees of the University of Rochester had reported as early as 1850 in favor of "the development of individual tastes and tendencies and some degree of choice with reference to the calling which the student has in mind." The question of a fixed curriculum and freedom of election of studies was raised later by Dr. Martin B. Anderson, in his inaugural address as president of the University of Rochester on "The End and Means of a Liberal Education." Two parallel courses of study—one classical, leading to the degree of Bachelor of Arts, and one scientific, leading to the degree of Bachelor of Science—were then established; also, an elective course for students who were not candidates for a degree. This



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report is one of the notable documents in the history of education in New York. It is interesting to note in connection with this report that President Anderson was the first choice of Dr. White for the presidency of Cornell University.

Special students were those who desired to pursue a definite line of study, as mathematics or chemistry, under the direction of a professor having charge of a department. A student who had spent the requisite time at the university and passed the proper number of trimestrial examinations was to be permitted to apply for a degree, which should bear a relation to the character of the subjects which he had pursued. If his studies were, in the judgment of the faculty, equivalent to either of the general courses, he could receive one of the usual baccalaureate degrees. Soon after the opening of the university, the general courses were arranged in the order of scientific, philosophical, and arts, and the third general course based upon the modern languages was dropped. Four special or technical courses were recommended, viz., agriculture, the mechanic arts, and civil and mining engineering. To these were added courses in chemistry and natural history, for all of which courses the degree of Bachelor of Science was to be given.

Upon the question of the ability of students entering upon a course of study, to choose wisely amid a multiplicity of courses those subjects best suited to their intellectual tastes and future needs, the report argues: The failure of college men of the highest standing in practical life is due to the existing system, but while the student may not be a perfect judge of the relative worth of the studies from which he may choose, or of their importance to him, his judgment still possesses value; and an overwhelming majority of students are competent to choose between different courses of study

carefully arranged. By the advice of older friends and the faculty of the university, a young man ought to be able to make a choice based upon his previous education and means of future education, upon his tastes, position, and ambition. No results could be more wretched than those of the existing system.

The plan of organization here proposed would make possible a practically unlimited number of courses, based upon a choice of the student or the advice of some individual. The report assumes competency on the part of mere beginners in knowledge, whose powers are but imperfectly developed, who have as yet no vision of any other fields of knowledge, the goal of whose intellectual life is not clearly defined, and whose future is in most cases undetermined, to select wisely and well among the variety of subjects presented in a great university. With adequate knowledge of the subjects necessary for their highest intellectual training and development, and for their future needs, men of the highest genius have frequently failed to recognize where they were strongest until late in life. The old education rested upon the harmonious development of all the powers of the youthful mind, and the recognition of the varied value in life and culture of a sympathetic acquaintance with the world's knowledge. The aim of education was, by the study of natural science, to teach observation, and to introduce the student to a knowledge of the world around him; by language, to teach accuracy of thought and expression, and unlock the treasures of classical and modern literatures; by history, to enable him to know something of the world's intellectual, religious, and political development; by the study of the science of the mind, to introduce the student to himself and to his immortal capacity and destiny; by mathematics, to make accurate thinkers and to show something of the methods

of investigation into the laws of the physical universe. Even if some students were silent and uninspired in the chamber of knowledge, they might have been equally blind and insensible had their choice been free but limited to a narrower horizon, for in many cases they would be obliged to choose without a motive. A self-direction, which is possible to all,—indeed essential to all in a certain stage of growth,—presupposes a certain preliminary training and maturity, and is only possible when it is the flower of a thorough antecedent culture, in which talent as well as taste has been developed.

Upon the value of disciplinary studies the views of the committee are characteristic and suggestive. They advise that those who have time and taste for the study of the classics should continue that study, the Greek for its wonderful perfection, the Latin for its value as a key to the modern languages and to the nomenclature of modern science, and both Greek and Latin for their value in the cultivation of the judgment. The modern languages as well as the sciences, which in recent years have attained such great importance, should be recognized at their full value in imparting instruction and in securing mental discipline. The idea that the only mental discipline is that which promotes a certain keenness and precision of mind is regarded as fallacious; there is another kind of discipline quite as valuable—discipline for breadth of mind. For the former, such studies as mathematics and philology are urged; for the latter, such studies as history and literature. To say that the latter are not disciplinary is to ignore perhaps the most important part of discipline. In American life there will always be enough keenness and sharpness of mind; but the danger is that there will be neglect of those noble studies which enlarge the mental horizon and increase the mental

powers, studies which give material and suggestions for thought upon the great field of the history of civilization. "Discipline comes by studies which are loved, not by studies which are loathed. There is no discipline to be obtained in droning over studies. Vigorous, energetic study, prompted by enthusiasm or a high sense of the value of the subject, is the only study not positively hurtful to mental power; hence the great evil of insisting upon the same curriculum for students regardless of their tastes or plans." It is not clear what mental injury is anticipated where the foregoing conditions are not met, as it is suggested rather than stated.

The report deals elaborately with the chairs of instruction which should be established, and concludes that twenty-six professorships would be needed at an early day. These professorships were: of the theory and practice of agriculture, agricultural chemistry, veterinary surgery and the breeding of animals, general and analytical chemistry, botany, zoölogy and comparative anatomy, geology, mineralogy, physics and industrial mechanics, mathematics, astronomy, civil engineering, physiology, hygiene and physical culture, moral and physical culture, history, political economy, municipal law, constitutional law, rhetoric, oratory and vocal culture, the English language and literature, French and the South European languages, German and the North European languages, the ancient languages (to be divided later into two or more professorships, when circumstances shall demand), æsthetics and history of the fine arts, architecture, military tactics and engineering, physical geography and meteorology. It was not, however, deemed necessary to fill all these professorships at once. The report elaborates at great length and defends a system of non-resident professors or lecturers, and proposes that, of

the preceding professorships, ten should be non-resident, viz., those of veterinary surgery and the breeding of animals, physiology, hygiene and physical culture, political economy, municipal law, constitutional law, the English language and literature, æsthetics and the history of the fine arts, architecture, military tactics and engineering, physical geography, and meteorology. It is interesting to examine this list at the present time, if for no other reason than to see the stress laid upon certain branches, and to note others which have become of commanding importance, for which no provision was suggested. Of the professorships first enumerated, a haze rests upon the one entitled moral and physical culture, as physical culture had been included under the head of physiology and hygiene. Possibly one professorship of physical culture was to be associated with morality, and the other was not. Later we find among the resident professorships one established for moral and mental philosophy, which was perhaps designed to cover the same field as that of moral and physical culture, which was first proposed. It was thought that eight or ten professors would be sufficient for the work of the first year.

The question of the character and qualifications, the terms of office, and the salaries of the professors to be appointed, was also discussed. It was recommended that the salaries of resident professors, who should be of equal rank, should be arranged in three grades, and should be relatively \$2,250, \$2,000, and \$1,700; the salaries of assistant professors should be arranged in four grades, the first of which should receive \$1,750, the second \$1,500, the third \$1,200, the fourth \$1,000 per year.

The scheme of appointing non-resident professors was presented and argued with great earnestness. The university was to be fully equipped with regular pro-

fessors, to whom it was proposed to add a class of non-resident, short-term professors or university lecturers. For these it was proposed to select the most eminent men in various departments of literature and science, who should present the "highest results or a summary of the main results of their labors." The advantages which were expected to come from this system would, in the first place, be favorable to the resident faculty, who, "remote from centers of thought and action, lose connection with the world at large, save through books, and become provincial in spirit; they lose the enthusiasm which contact with other leading minds in the same pursuits would arouse." Under the new system "there would be a constant influx of light and life, the views of the resident professors would be enlarged, their efforts stimulated, their whole life quickened." There can be no question that the conception of a university faculty alert in the pursuit of truth, every member of which should be a master in some department of knowledge, a center of light, discovering and diffusing truth, and himself an independent authority, is not here contemplated. The intimate communion of scholars, promoted by learned societies and scientific journals, by which fresh studies and investigations become at once the property of all, is overlooked in this somewhat cloistered conception of a university. The influence of non-resident lecturers upon students was especially extolled; in the case of men of the greatest ability and eminence, an enthusiasm would be aroused among students in various departments of knowledge, which would direct their energies into channels of thought and study. The public in general, which under ordinary circumstances did not avail itself of the privileges of the university, would be benefited, by the influence of men already in active life. Such a system would contribute to the reputation of the uni-



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versity by associating with it, in addition to a meritorious resident faculty, a number of special professors or lecturers, whose ability and research were acknowledged; "the institution would arrive in a short time at a height of reputation which other institutions have failed to achieve during long years of ordinary administration." A resident faculty could in that case be chosen for its "energy and working ability," and not for the hard work of the university—men *who have attained eminence and so outlived their willingness to do hard work*.

The danger that scholars who have attained eminence might "have outlived the necessity of hard thought and work," and so be less valuable as teachers, is expressed repeatedly in the report—certainly, if true, a warning against eminence, and a frightful result to anticipate of a life devoted to true knowledge and the service of one's fellow-men.

The plan of securing as professors young men "who have a name to make and can make it," was recommended. "We can thus secure enthusiasm, energy, ambition, and willingness to work, *without paying enormous salaries*." Great and proper stress is laid in the report upon general culture in the professors to be appointed, apart from mere scientific attainments. "The university must not only make scholars, it has a higher duty; it must make *men*—men manly, earnest, and of good general culture." Young men were to receive the form and impress which they should bear through life.

A noble ideal of the character of the university teacher was here presented, and one worthy of the author of the report, who in his own person so well illustrates the refining influences of letters and of association with men.

For teachers of modern languages, Americans were

recommended instead of foreigners. "The slight advantage in correct accent possessed by an instructor from a foreign country is always too dearly purchased by the sacrifice of qualities which ensure success in lectures or recitations."

To make the personality of the professors effective in exerting an influence upon the character of the students, the freest and most intimate intercourse between professors and students was advocated. The Athenian ideal of culture was to be realized by a frank, full, and genial conversation between teacher and taught; for a manly sympathy in thought and learning between the pupil and teacher is worth more than all educational machinery apart from it. To make possible and promote this intercourse, it was even proposed that additions to the salaries of professors be made to enable them to meet the cost of the social entertainment of students. It is proper to say that the relations of students and professors in the university have been, from the first, of the most frank and cordial character. Harmony and co-operation in the faculty were insisted upon; in case of feuds and quarrels between professors it was recommended that all concerned be at once requested to resign, unless the disturbing person could be recognized beyond reasonable doubt. It was affirmed, "better to have science taught less brilliantly than to have it rendered contemptible."

THE NON-RESIDENT LECTURE SYSTEM

The non-resident lecture system, which had been emphasized in the plan of organization, was a characteristic part of the proposed university. At the meeting of the Board of Trustees held in Albany, September 26, 1867, six lecturers or non-resident professors were appointed. The most prominent of these were

Louis Agassiz in natural history; James Russell Lowell in English literature; George William Curtis in recent literature; Theodore W. Dwight in constitutional law; James Hall in general geology; and Governor Frederick Holbrook of Vermont in agriculture. Most of these lecturers had exhibited a general interest in the new university, and had co-operated by counsel and suggestion as to the form which it should assume. Lectures of the character proposed, so far as they were a substitute for systematic instruction in a given department, were necessarily unsatisfactory. They were either popular and general in character, or, if scientific, they stood alone, not supplementing, save indirectly, any given course of study. Of such general lectures, treating of detached authors or periods in literature, or presenting a popular outline of science but constituting no distinct chapter part of a given course, the number might be increased indefinitely. These lectures were delivered first in the spring of 1869. It is interesting to note the subjects. George William Curtis gave twelve lectures, and presented a Review of Modern Literature, The Novel, Dickens, Thackeray, Women in Literature, George Eliot, Carlyle, Robert Browning, Elizabeth Barrett Browning, Tennyson, American Literature, Nathaniel Hawthorne. Mr. Lowell was at that time an experienced academic lecturer, but he felt a stage fright at the prospect of lecturing before a public audience and wrote with characteristic humor: "I have been in a dreadful *funk*, growing worse as the day drew nearer. I knew just how Cowper felt about his clerkship in the House of Lords, and have often meditated running away as he did. But I shall keep my word. I was still more terrified when I saw that my title was Early English Literature. I couldn't make twelve lectures on that subject to save my soul; however, I shall bring with me a dozen

lectures such as I have found most entertaining to my classes here, and try my luck. If I don't suit you, you have only to be frank with me and I will make room for somebody else who will do better. I suppose there is no chance of escape now? You have no notion how great a fool I can be, and it seems a queer trick of fate that I should have been doing for thirteen years what grows harder instead of easier to me." Mr. Lowell delivered twelve lectures in the spring of 1869 and 1870. He discussed *The Elements of Literature* in three lectures, *A Review of Literature*, *The Imaginative in Expression*, *Wit and Humor*; *The Troubadours and Trouvères*, *Piers Plowman's Vision*, *Dante*, *Chaucer*, *The Authors between the Time of Chaucer and Spenser*, *Spenser*, *Early English Ballads*, *Pope*, and *Higher Culture*. Professor Dwight's course upon *Constitutional Law* embraced twelve lectures, the subjects of which included a definition and explanation of terms; the sources of the Constitution; mode of generating governments; difference between the state and general government; structure of the United States government, and powers of Congress and restrictions upon Congress. There is no doubt that the names of these accomplished lecturers were a brilliant contribution to the university at its opening, as they would have been at any subsequent time. The personality of Professor Agassiz and his enthusiasm for science not only interested the general students of the university, but incited some to an enthusiastic pursuit of science. His humor was unfailing. On August 29, 1867, he wrote in reply to an inquiry: "I have a cold in the head and write 't's' for 'd's.' Have you ever experienced that yourself?" His lectures were confined to a single course, as his engagements did not permit him to continue them. He spent a month and a half at the university. Professor Lowell's subjects, while more

critical and remote than those of Mr. Curtis, possessed all that charm of composition, that ample knowledge, that grace and delicacy of humor which have made him one of the prominent figures in American literature. Mr. Lowell lectured only a single year. Mr. Curtis, whose graceful style and pleasant discursive criticism charmed for so many years the readers of *Harper's Monthly*, won an enthusiastic reception from the student world. The lectures of Governor Holbrook, who had a popular interest in agriculture, and of Professor Hall, were never delivered. Professor Curtis delivered his lectures a second time during the spring of 1871. Mr. Bayard Taylor was elected non-resident professor of German literature on July 17, 1869, and delivered his first course of lectures in the spring of 1870. The subjects of his lectures were: Lessing; Klopstock, Wieland, and Herder; Schiller; two lectures on Goethe, and one on Alexander von Humboldt. A second course, delivered in the beginning of June in the following year (1871), embraced lectures on The Beginnings of German Literature; The Minnesingers; The German Epics of the Middle Ages; The Nibelungenlied; The Literature of the Reformation, and The Literature of the Seventeenth Century. In May, 1875, the first course was repeated, with the substitution of a lecture on Richter for that on Humboldt. In the year before Mr. Taylor was appointed as minister to Germany (May, 1877) he repeated his second course of lectures, which he had re-written, and in which he had substituted original translations for those previously borrowed from others. These lectures, except that on Richter, were later published in his *Studies in German Literature* (1879). They were held in Library Hall, which enabled the citizens of Ithaca to attend them, as well as the students. Mr. Taylor, who was widely known for his books of travels, and

later for his translation of *Faust*, although not in a technical sense an authority upon German, was a master workman in literature, and the lectures which he delivered, though popular in character and prepared expressly for the occasion, were suggestive from the interesting comparisons introduced, covering a wide range of reading, and from his sympathy with the writers whom he selected for treatment. The translations with which he illustrated his lectures were often very felicitous. Few American writers have possessed so remarkable a power to reproduce the words and metre, and to imitate the style of earlier and contemporary writers. The "Echo Club," which he afterward wrote for the *Atlantic Monthly*, illustrates in a remarkable degree his unusual gift of improvisation. His death in Berlin, on December 19, 1878, as envoy extraordinary and minister plenipotentiary to the German Empire, called out Mr. Longfellow's poem, *Bayard Taylor*, beginning:

"Dead he lay among his books;
The peace of God was in his looks."

Professor George W. Greene, the author of the elaborate life of General Greene of the Revolutionary army, delivered several extended courses of lectures upon American History in the years from 1872 to 1874. A bust of this distinguished scholar and delightful man, presented by his friend, the poet Longfellow, was placed in the library in 1879. Mr. John Fiske also delivered seven lectures upon the same subject in April, 1881. Mr. Froude, the English historian, delivered six lectures on the History of English Rule in Ireland, in October and November, 1872. Professor Von Holst of the University of Freiburg, the eminent author of the great work on American Constitutional History, delivered ten lectures on that subject, May 19-30, 1879.



TRUSTEES

John DeWitt Warner (1862-1887;
1894-1899; since 1903)

Frank Harris Hiscock (1889-1894;
since 1901)

Mynderse Van Cleef (since 1895)

Robert Henry Treman (since 1891)

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Mr. Edward A. Freeman, the historian, delivered several lectures in November, 1881, in which he discussed the political institutions of Greece, Rome, and Modern Europe, which, however, as they had been in part previously published, won but limited recognition.

The system of non-resident lectureships proved a valuable feature in Sibley College, under the skilful guidance of the director, Dr. Robert H. Thurston. Eminent specialists were invited to discuss some subject in technical or theoretical science of which they were the acknowledged masters. These special discussions have constituted brilliant illustrations of certain subjects which had already formed a part of the instruction of the students, who had thus been qualified to understand the latest discoveries in applied science. Many of the most eminent scholars in America have during the last eight years lectured before the students of Sibley College, among them Professor Bell, the inventor of the telephone; Horace See, on modern marine construction; George H. Babcock, on the steam engine; Elihu Thompson, on electric distribution; Henry Metcalfe, U. S. A., on costs and manufactures; Thomas C. Clarke, on the construction of large railroad bridges; Lieutenant Zalinski, on the pneumatic dynamite gun; R. W. Hunt, on the manufacture of Bessemer steel; B. F. Thurston, on the theory of patent law; C. J. Woodbury, on the modern mill; Charles E. Emery, on the governing proportions of steam boilers, etc., etc.

The first demand of a university lecturer is that he should be didactic. Other gifts, of philosophical generalization and description, have also their place, and the ability to interest and inspire, even where the content of the lecture is less marked, is a quality of high value in a university teacher. Professor Dwight was a great teacher. He had the power to group his material and present it in the most effective manner. His lec-

tures had unity in themselves, and the course which he delivered here in successive years, while not supplemented by the study of text-books and recitations, constituted a valuable series, upon a subject of importance to every citizen, when the resources of the university were insufficient to equip the necessary chairs of permanent instruction.

A university in which adequate provision has been made for instruction by eminent scholars in all departments of learning which form a part of its curriculum will not need external assistance. If its means are not ample, and its teaching force inadequate, the use of its resources for costly attractions from without is not justifiable. The province of all courses of extra lectures should be to supplement the established curriculum, and not in any sense to be a substitute for it. Superficial and merely popular knowledge cannot take the place of the accurate and scientific training required in a university. The most illustrious professors lecturing to minds unprepared would be a waste of intellectual power. Where students are specially prepared, the work of eminent scholars may be added to present brilliantly some phase of knowledge. Modern courses of study are, however, so crowded that the introduction of additional subjects can often only divert, or be done at the expense of essential and systematic work. At the time of the introduction of these lectures here, the means of the university were so limited, and the faculty were so restricted in facilities for essential instruction, that criticism of any system which impaired the success of the work in required courses was natural and universal.

CHAPTER IX

1. UNIVERSITY ADMINISTRATION. 2. ALUMNI REPRESENTATION ON THE BOARD OF TRUSTEES. 3. RELATION OF THE UNIVERSITY TO THE CHURCH

THE plan of organization presented to the trustees two years before the opening of the university must be regarded as an expression of the views of a single trustee. It is signed by Mr. Andrew D. White in behalf of the committee on organization. There is no reference in the records of the trustees to the appointment of such a committee, and Mr. White himself states that the plan of organization as presented was prepared at the suggestion of Mr. Cornell. Mr. Cornell studied it carefully, gave it his approval, and a copy with the notes in his own hand is still preserved. There is no evidence that, at the time this report was prepared, Mr. White was even a prospective candidate for the presidency. He states that he did not know the purpose of Mr. Cornell to present his name for such an appointment until he was formally nominated for election on October 21, 1866, by Mr. Cornell. The report, however, was published under the authority of the trustees, and may be regarded, in connection with the election of Mr. White as president at the same meeting, as receiving the endorsement of the board and as an expression of its views regarding the proposed form of the university. The charter was bestowed upon a corporation of ten persons, viz., Ezra Cornell, William Kelly, Horace Greeley, Josiah B. Williams, William Andrus, John McGraw, George W. Schuyler, Hiram Sibley, J.

Meredith Read, and John M. Parker, who were to constitute a body politic and corporate to be known as the Cornell University, having the rights and privileges necessary to the accomplishment of the object of its creation, and subject to the provisions and with the powers enumerated in the revised statutes of the state of New York as regards college corporations. This is a general grant or bestowal of power, without the specification of details, such as is made in the charter of other universities in the state and elsewhere in the country. Similarly, there is no specification of the duties or province of the faculty in regard to the consideration and determination of important questions in the educational policy of the university. The question of the establishment and approval of courses, the requirements for admission and graduation, the settlement of questions of discipline, or any specification of the important functions which, by common university law and tradition, are possessed by the faculties of other institutions of learning, were not specified in the charter. A delimitation of the respective powers and prerogatives of the two bodies was not made until a formal codification of the university statutes by a committee of the trustees, of which Judge Douglass Boardman was chairman, was adopted on May 19, 1891. We find in the early history of the university the executive committee exercising functions which later, and naturally, were assigned to the faculty, such as changing the standard of requirements for admission, prescribing the uniform to be worn by the university students, and even inflicting discipline. An amusing, but not serious, difference of opinion arose at one time between these two bodies as to the expediency of requiring all students of the university to wear a military uniform. The faculty were by no means united in the belief that the university should be transformed into a

military school. They saw that in the very nature of the university it would be impossible, as well as undesirable in its future growth and development as a seat of advanced study, to enforce the universal obligation of military drill and dress. The expense of such a costume, as well as a reluctance on the part of students to invest themselves permanently in a costume which was without beauty or variety, raised serious opposition on their part. Finally, as a compromise, it was enacted that as a distinguishing badge all students should wear a military cap. The faculty seems to have raised some objection to even this compulsory badge, but the trustees claimed authority to dictate and determine a general policy, and directed that the rule should be enforced.

There is no specification of the distinct province of the faculty and trustees, the latter of whom have certain duties provided for in the charter, and a wide scope of undefined powers attaching by common academic law to their office. In order to avoid stagnation and lack of initiative, which often prevails in bodies whose power is self-perpetuating, it was distinctly recommended that the term of office of trustees should be fixed at five years, and that it should require a vote of two-thirds of the electing body to re-elect a former trustee. The active interest and participation of the alumni in the government of the university, in accordance with the established usage at the English universities, and as had been recently done at Harvard University, by which the alumni, in place of the legislature, chose the members of the Board of Overseers, was to be secured by permitting the alumni of the university, whenever they reached the number of one hundred, to choose one trustee.

The relation which the faculty should sustain in the administration of the university was so conceived as

to give great dignity and importance to their deliberations. That system of college government was criticised, in which the president appropriates the main functions of administration, originates action, and is responsible to the trustees alone for whatever he may do, while the faculty have no share, or only a limited one, in determining the courses of study and the character of the work that shall be done in the university. The faculty "are not merely advisors, but legislators," they should have stated meetings for the purpose of conducting the general administration of the institution and memorializing the trustees, discussing general questions of educational policy, and presenting papers upon special subjects in literature, science, and the arts. The entire faculty should constitute an academic senate, in which all members of the teaching staff should have the right to speak, but the right of voting should be confined to resident and non-resident professors, and assistant professors representing departments in which no full professor has been appointed. The division of the faculty into groups according to departments, each presided over by the president or a dean, was also recommended.

From the formal discussion of the constitution of the new university, the report proceeded to discuss its equipment, and it was proposed that the agricultural department should include a model farm for the study and illustration of scientific agriculture, and that a museum of models of agricultural implements, products, etc., should be formed. The department of mechanic arts should be equipped with collections of drawings, casts, sectional and working models, in general character like those in the Conservatory of Arts and Trades in Paris. The illustrative collection should be first, and the model workshop second. For the experiments in agriculture one farm would be suffi-



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cient, as the main outlines of procedure in practical culture and experiments are simple; a small range of implements would be sufficient for the whole work; in mechanics, as a rule, one workshop will answer only for the single branch to which it is devoted. "There is then no such need of experimental workshops in this department, as of experimental farms in the other."

The vast development of shops for practical work in forging, casting, turning, and carpentry, was but dimly foreseen twenty-eight years ago. The introduction of these in their larger extent followed the exposition of 1876 in Philadelphia, when the system of shops in the Russian schools of technology was first revealed to American educators.

For mathematics and engineering, drawings, engravings, models and casts were recommended; for natural history, collections in geology, mineralogy, zoölogy, comparative anatomy, and botany; also the acquisition of the best apparatus for physical and chemical investigation, especially that which would illustrate the solidification of carbonic-acid gas; apparatus for the direct generation on a large scale of electricity from steam, the Boston modification of Ruhmkorff's coil, for presenting the effects of electricity induced by the galvanic current, and the new French apparatus for experimenting upon light. The author of the report regarded this apparatus as especially brilliant and most worthy of acquisition, as best illustrating the progress of science in the departments of chemistry and physics at that time. Mr. White's love of art, and interest in it as illustrating the history of culture, is shown by the proposal to found as soon as practicable a museum of casts, of which there were then few in the United States, and these of very limited extent.

Provision should be soon made for a library as the

culmination of all,—touching all departments and meeting the needs of teachers and taught. From the first, the building up of a library suited to the wants of the institution and worthy of its aims should be steadily kept in view. A large library is absolutely necessary to the efficiency of the various departments; without it, men of the highest ability will frequently be plodding in old circles and stumbling into old errors. The history of the progress of modern science is the history of a development and accretion—development out of previous thought and work—accretion upon previous thought and work. The discovery of truth and the diffusion of truth—the two great functions of a university—will be impossible without a liberal library.

The government of the university in its relation to students, the manual-labor system, the cost of tuition, physical culture, the dormitory system, the relation of the university to other institutions of learning and to the school system of the state, and the final general test of university education, were then discussed. What was to be the theory of discipline in the new university? Should it be military, or the ordinary collegiate discipline, or an adaptation of the free university system of continental Europe? “The military system has undoubted advantages. It puts all students upon an equality in mere outward advantages of dress, style, and living; it subjects students to a more perfect control; it gives from among the students officers to aid in enforcing rigid military discipline.” On the other hand, uniformity in dress would lessen the individuality of students. The professor would be deprived of one of the best means of judging those who are before him in his lecture room, and of knowing him in his lecture room, and of knowing how to deal with the individual. A student loses nothing in the estimation of the university world by a dress which

indicates frugality or economy. In no community on earth is man estimated so exactly by what is supposed to be his real worth, as in a community of college students. It was not believed possible to apply a rigid military system to the whole university. By the fundamental theory of the university there would be students of various ages and grades, some attending courses of instruction for a longer, some for a shorter time, some residing in the university buildings, some in the town itself. Military science should always form a part of the instruction, but it was not recommended that the government be military except perhaps in some single departments, where efficiency would be promoted by military forms. The ordinary collegiate plan of government, although necessary from a partial adoption of the dormitory system, was not regarded as final by the committee.

It was believed that a system of university freedom would promote the best government. "In this system, laws are few but speedily executed, and the university is regarded neither as an asylum nor a reform school. Much is trusted to the manliness of the students. An attempt will be made to teach the students to govern themselves, also to cultivate acquaintance and confidence between the faculty and students. By the rigid execution of a few laws of discipline, by the promotion of extra-official intercourse between teachers and taught, by placing professors over students not as police but as a body of friends, a government would be secured better than any other."

A system of manual labor in connection with the departments of agriculture and the mechanic arts, by which students could defray a portion of their expenses, was recommended. While experiments of this kind had been made unsuccessfully in certain cases, it was thought that they had not been fully or fairly

tried, or with such ample means as the university would afford. It was not proposed to make, as in most agricultural colleges, labor obligatory upon all students. One practical objection would be conclusive against it, if theoretical objections were not: it would be impossible to provide labor for all. It might, however, be necessary to require manual labor from all the students in certain departments. Labor corps would be organized, and every inducement held out to students to join them. Such a system would be of mutual advantage to the students and to the university; it would promote the muscular development of students and give substantial pecuniary aid to many. It was not, however, thought that physical labor could take the place of athletic sports and gymnastic exercises in giving restoration after mental labor. The mind could not be kept fresh, elastic, and energetic when the only relief from tension was the change from one form of labor to another. It was therefore recommended that a fully equipped gymnasium be erected, and that gymnastic exercises under the direction of an instructor, or equivalent training in manual labor or exercises in the open air, be required of all. Boating, baseball, and other recreations were to be encouraged, and deterioration in physical culture was to be held in the same category as want of progress in mental culture, and subject a delinquent to deprivation of university privileges. Attendance upon a course of lectures upon anatomy, physiology, and hygiene was to be required.

The only additional reference to military drill was contained in the recommendation that provision be made for teaching military engineering and tactics, and that some plan for encouraging military tactics or making it obligatory be adopted.

In estimating the proper cost of tuition a comparison was made of the charges at various colleges; tuition at

Yale was given as \$45 per year; at Harvard as \$100; at the Institute of Technology in Boston as about \$130; at the Lawrence Scientific School as from \$250 to \$300. In the University of Michigan, students from without the state paid a matriculation fee of \$20, and \$5 per year thereafter; in the Agricultural College similar students paid \$20, while in Dartmouth College and the Scientific School the fees were from \$30 to \$50. The committee recommended therefore a matriculation fee of \$15, and an annual tuition fee of \$20. The matriculation fee was, however, never charged, and the tuition fixed at \$10 per term or \$30 per year. Room rent in the university dormitories was charged at from 60 cents to \$1 per week, according as two or three students occupied one room.

While the dormitory system became thus a part of the organization of the university, its extension and permanent existence were regarded as undesirable. The residence of a large number of students in colleges had been the source of fruitful evils; it made a certain oversight and surveillance necessary; it transformed the college officer into an agent of discipline, and destroyed the friendly relations which existed between teacher and taught. It was, however, deemed necessary at the opening of the university; the town was still remote, and its immediate capacity to afford adequate accommodations was doubtful. It was besides necessary that students should find homes upon the university grounds to conduct the experiments and carry out the labor system which was proposed. Views maintaining the equal value of all studies for culture were in part revolutionary, and Matthew Arnold wrote: "Cornell University rests upon a provincial misconception of what culture is, and is calculated to produce miners or engineers or architects, not sweetness and light."

CHAPTER X

THE RELATION OF THE UNIVERSITY TO THE STATE. EX-OFFICIO TRUSTEES. STATE SCHOLARS

BY the original charter of the university the number of regular trustees was fixed at seventeen, and in order to bring the university into direct relations to the government of the state, the governor, lieutenant-governor, speaker of the house of assembly, superintendent of public instruction, president of the state agricultural society, librarian of the Cornell Library, and the eldest male lineal descendant of Ezra Cornell were made *ex-officio* members. The system here inaugurated had been in vogue in our older universities, in which the legislatures of Massachusetts and Connecticut elected a certain number of the trustees or overseers of Harvard and Yale Colleges. Later, it was found in these institutions, that this system was not satisfactory in its results. It promoted the introduction of political influence in appointments, and political officers, not elected for their academic attainments, became decisive factors in influencing legislation in a university community. In the case of Cornell University, remembering that the university had received its endowment in part from the national government through the state, there was a justification of the method of appointing a representative of the state upon the board of trustees. The university has not by this feature of its charter attained a unique relation to the state, as other universities and colleges have a similar provision for representation. The permanent advantage

of such a connection is doubtful. Certain governors have recognized the responsibility of their relation to the university and their influence has been exerted advantageously in the counsels of the trustees. In many cases governors have not visited the university during the entire period of their term of office, nor been present at any meetings of the board. A purely formal relation without essential responsibility does not secure the efficient services of any officer. As a matter of fact it has been exceptional for one of the state officers to be present and participate in the deliberations of the governing board, save perhaps in the case of the superintendent of public instruction. In the early years of the university, the personal relations of President White to many state officers was such as to secure their interest in the university, and the governor and the chancellor of the University of the State of New York were uniformly present at the annual meetings of the board. At the present time, we may safely say that this feature of the university organization is ineffective, and while occasionally of advantage it makes possible for an irresponsible state representative, by his vote, to affect temporarily the educational policy of the university. The system of government by regents elected by political parties in the state universities of the West has been a fruitful source of discord, and has been the occasion of the introduction of non-academic elements in university administration.

That provision which makes the "eldest male lineal descendant" of the founder a trustee has never reached legal interpretation, and it is not clear whether this provision means a descendant of the oldest son, or, as the words apparently imply, the oldest living male descendant.

When it was proposed, in 1894, to enlarge the num-

ber of regular trustees, from seventeen to thirty, the proportion of *ex-officio* trustees to regular trustees was greatly diminished.

STATE SCHOLARSHIPS

The question of providing state scholarships in colleges founded under the National Land Grant Act was agitated very early. The state of Connecticut, in the act establishing an agricultural and mechanical college in connection with the Sheffield Scientific School, provided for gratuitous instruction to students especially selected under certain regulations to enjoy this privilege (approved by Governor Buckingham, September 3, 1863). "The number of pupils to be so received gratuitously into said school shall be in each year such a number as would expend a sum equal to one-half of the said interest (on the income of the National Land Grant) for the same year in paying for their instruction in said school, if they were required to pay for it at the regular rates charged to their pupils." The state of Rhode Island, in bestowing the land scrip upon Brown University, provided that it should educate scholars each at the rate of one hundred dollars per annum, to the extent of the entire annual income from such proceeds, subject only to the provision permitting one-tenth part of the income to be expended in the purchase of lands. The senators and representatives from the several towns in the state were constituted a Board of Commissioners to present to the governor and secretary of state the names of worthy young men to be educated as state beneficiaries, and the commissioners were instructed after one candidate had been presented from each town in the state, to select the candidates, as far as may be, from the several towns in the ratio of their representa-



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tion in the House of Representatives and from that class of persons who otherwise would not have the means of providing themselves with the like benefits.

In New Jersey, students of agriculture and the mechanic arts were to be admitted to the proposed college upon the recommendation of the board of chosen freeholders of their representative counties; and the number of students which a county should, at any one time, be entitled to have in the college, was to be equal to the number of representatives in the legislature to which the county was entitled, or in proportion to the same, and the trustees were required to furnish gratuitous instruction to pupils, the number of whom each year should be such as would expend a sum equal to one-half of the said interest (on the National Grant) for the same year, in paying for their instruction, if they were required to pay for it at the regular rates. Some of the states in which agricultural colleges already existed provided for free instruction for all students from the state, as in the cases of Iowa and Michigan. Others, like New Hampshire, provided for free tuition to indigent students. The Industrial University of Illinois had proposed as early as March 4, 1866, to found two or three free scholarships, open to students in every county who passed the best examination for admission. The provision which most nearly affected the charter of Cornell University was a section in the act assigning the land scrip to the People's College, passed May 14, 1863, which antedated all others, providing that, from the year 1868, or whenever in the opinion of the Regents of the university the income arising from the investments provided for in the act should warrant the same, the People's College should receive students from every county in the state, and "give and furnish to them instruction in any or all the prescribed branches of study pursued in any de-

partment of said institution, free from any tuition fee or any additional charges to be paid to said college; and the Regents of the university shall from time to time designate the number of students to be so educated; but they shall be selected or caused to be selected by the chancellor of the university and the superintendent of public instruction, who shall jointly publish such rules and regulations in regard thereto as will in their opinion secure proper selections and stimulate competition in the academies, public or other schools in this state." It was also provided that the Regents should determine from year to year in accordance with the income of the college the number of youth who should be exempt from any payment of board, tuition, or room rent; but in the selection of students preference should be given to the sons of those who had died in the military or naval service of the United States. This provision regarding preference to be shown to the sons of those who died during the war appears also in the charter of other institutions, as in the cases of the states of Connecticut and Wisconsin, which provisions were adopted subsequently to this date. Cornell University, in receiving from the state the Land Grant Fund, assumed the obligation which had been imposed upon the People's College, but with a more definite specification of the number of those who should receive gratuitous instruction, it being provided that it should receive annually students, one from each assembly district of the state, that such free instruction should be accorded to students in consideration of their superior ability as a reward for superior scholarship in the academies and public schools of this state. It differed further from the act appropriating the proceeds of the Land Grant Act to the People's College by providing that the school commissioners of each county, or the Boards

of Education in each city, should select annually the best scholar from each academy, and each public school of their respective counties or cities, as candidates for the university scholarship, which candidates should meet, and after a special examination, the best scholars, one from each assembly district in said county or city, should be selected and receive certificates entitling the students to admission to the university, subject to the examination and approval of the faculty, which selection in the previous act was to be made by the chancellor of the university and the superintendent of public instruction, or under their direction. Under this provision Cornell University entered into a direct obligation with the state by which it was bound to educate contemporaneously four students from each assembly district, should that number apply for admission, making a total of 512 students, who should be drawn from the public schools and academies of the state. The free instruction thus provided secured the education of a larger number of students than the entire number upon the catalogues of several colleges. This act placed an advanced liberal and technical education at the disposal of the most meritorious scholars from all parts of the state. It also brought the university into direct relationship to the courses of study in the high schools and academies of the state, and it has become indirectly through its powerful advocacy, and directly by its standard of requirement, an important factor in elevating and directing the entire system of public instruction throughout the state. All parts of the state did not share at once and equally in the advantages thus presented. Owing to the indifference of educational boards, in many cases examinations were not provided for students who desired to avail themselves of the benefits of the state law. Some of the most populous

cities of the state took no action for years to admit the pupils of their public schools to this important advantage. By an act amending the charter of the university, the immediate responsibility for the execution of this law was entrusted to the superintendent of public instruction, by which it was further provided that, in case any county was unrepresented in the university, or the scholarship was not claimed by a student of that county, the state superintendent might, after notice had been served on the superintendent or commissioner of schools of said county, appoint a candidate from some other county, whose rank entitled him to such recognition. The superintendent was required also to prepare the examination papers upon which appointments were based, to retain the papers presented by the different candidates, to keep a record of the standing of candidates, and to notify them of their rights under this act. He was also charged with the general supervision and direction of all matters in connection with the filling of such scholarships. Under the wise provisions of this act, the full quota of scholarships allotted to the state was filled, and the number of students availing themselves of the privileges of the university increased rapidly, the number admitted rising from 375 in 1886-87 to 442 in the following year, and 562 in the succeeding year. To these public provisions for scholarships should be added the fact that free tuition has been accorded to students who pursued the full course in agriculture, and also to graduate students, so that the number receiving free tuition at the present time is not far from 700 students.

The university has come into more immediate relations with the state and with popular education by that provision in its charter through which state scholarships were established in every assembly district of

the state, the appointment to which devolves upon the school commissioners in the different counties, acting under the direction of the state superintendent of public instruction. The original charter provided that one student should be admitted from each assembly district. As there were 128 districts, it was possible for the number of state students to reach a total of 512, who should be admitted by the university, free from expense, save tuition. In 1895, when the new constitution of the state went into effect, and the number of assembly districts was increased to 150, corresponding to the increase in population, it made it incumbent upon the university authorities to accept and educate 600 students, free of expense. As the cost of such instruction amounts in the case of every student to about \$300 per year, the tax upon the treasury of the university in executing this provision of its charter amounts to about \$180,000 per year. In return for this large outlay, the state has made no gift to the university in funds, but has provided certain halls of instruction in veterinary science, agriculture, and dairy husbandry in obedience to the obligations which it assumed in accepting the National Land Grant, the title of which buildings remains vested in the state and not in the university. The system of German education, under the direction of the minister of public instruction, gives a unity to the entire system of education throughout the various states of the German Empire. Analogous provisions in some of the western states bring the state universities into immediate relations to the school systems of the state. The university has the power to prescribe terms of admission, and thus in this way it has contributed to raise the standard of instruction throughout all the schools of the state. By co-operation with the regents of the university, and with the superintendent of public instruction, this val-

nable result has been achieved. Other forces have co-operated, notably the union of the representatives of different colleges and high schools in the Middle States, acting through the College Entrance Examination Board, and by a similar representative organization in New England. The National Educational Association has exerted a beneficent influence in securing unity of requirements in the various elementary branches in all the schools of the country. The influence of various departments has been felt in promoting the instruction in modern languages, notably in English, through Professor Hart. An exhaustive study of the places allotted to German instruction in the curriculum of American colleges was prepared by Professor Hewett, acting under the direction of the Modern Language Association of America, which proved serviceable as an initial step in showing the inequalities which existed in the space allotted to the modern languages in the various colleges of our country. Professor White published an examination similar in character to the requirements for admission in German in the various preparatory schools.

The relation of the university to the state has been made more intimate from the relation of state officers to the Experiment Station, the Veterinary College, and the College of Forestry.

On October 27, 1884, the trustees of the university set apart the income of a fund of \$150,000 for the establishment of scholarships and fellowships. The origin of this fund illustrates one of the noblest acts of generosity in the history of the university. The cost of administration and equipment had exhausted the income for successive years; a debt of more than \$150,000 threatened the serious embarrassment, if not the abridgment, of the work of the university; the large plan outlined in its establishment had been

proved to involve an expense far in excess of the available funds. At a meeting of the Executive Committee, after serious debate respecting the financial difficulties in which the university was placed, President White made a proposal to pay a proportion of the university debt according to his property, provided the whole debt could be paid in the same manner by individual members of the Board of Trustees. Mr. Cornell offered \$50,000 to discharge the debt, and finally increased his gift to \$75,000, provided the balance could be raised. The proposition awoke much enthusiasm, and confidence was expressed that the difficulties which beset the university could in this manner be overcome. Messrs. John McGraw, Henry W. Sage, Hiram Sibley, and Andrew D. White gave each \$20,000, which, with Mr. Cornell's generous gift, enabled the university to discharge its liabilities. There seems to have been an understanding at this time, or subsequently, that in case the university revenue should ever be sufficient, the income of this sum should be devoted to found scholarships and fellowships for meritorious students. It seemed possible, at the meeting of the Board of Trustees on October 27, 1884, to carry out the proposition which had been formed so long before, and it was voted to establish twenty-four scholarships, six to be awarded each year, of the value of \$200 each, to be assigned to the students passing the best examination for admission, after special examination. Three scholarships were also established from the Sage fund, which were to be increased to twelve after the year 1887, three to be open to each class upon entering. These scholarships were to be awarded to women, one of which was to be bestowed upon the woman passing the best examination for entrance to the course in arts, and two to women students entering the freshman class in any other course. It was

provided that these scholarships should be tenable for one year, and at the end of the first year the faculty should decide who should retain or receive the scholarships for the remaining three years of the course, either by the record made by the students through the first year or by competitive examination, or in whatever manner it should be deemed best. There were also established at the same meeting seven fellowships of the value of \$400 each, to be awarded to graduate students of Cornell University, or of some institution of equal rank, who had distinguished themselves in some special department of study. Since this time one additional general university fellowship has been established; also three Susan Linn Sage fellowships in philosophy and ethics, and six graduate scholarships in the School of Philosophy, according to the terms of Mr. Sage's endowment, and also two President White scholarships in History and Political Science, two fellowships in Political Economy and Finance, two fellowships in Latin and Greek, and one fellowship in American History. At the meeting of the trustees held October 8, 1893, ten additional graduate scholarships were established of the annual value of \$300 each, and five additional fellowships of the annual value of \$500 each. At the same time the value of each of the existing graduate scholarships and fellowships was increased by \$100 per year.

CHAPTER XI

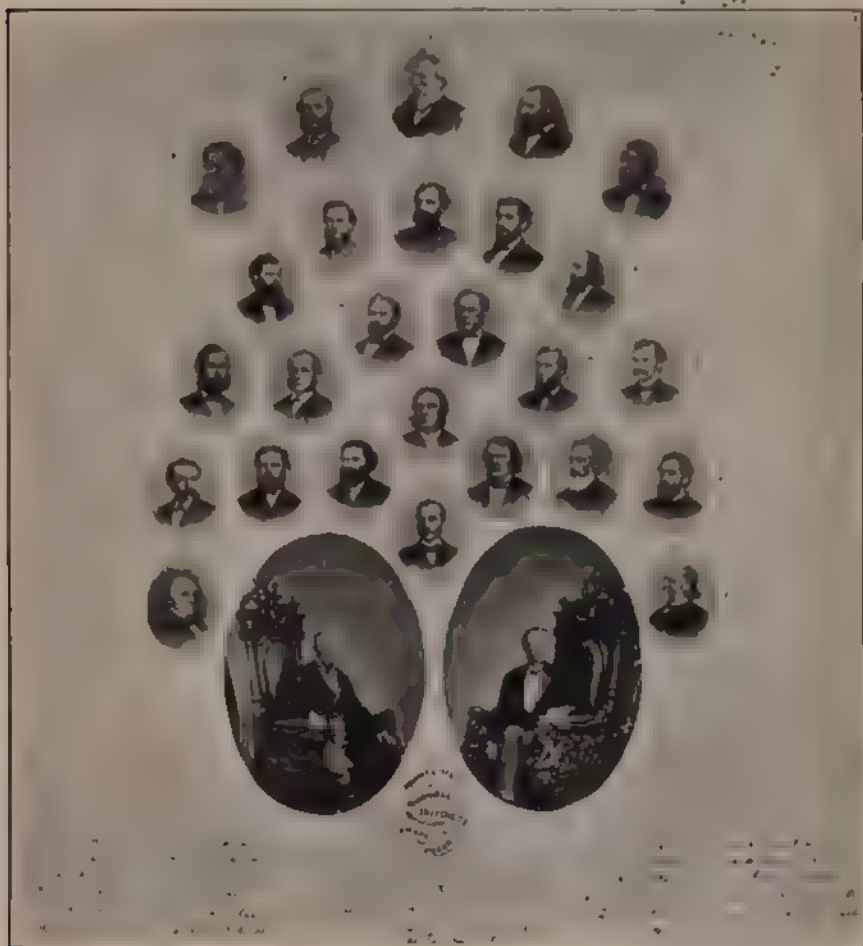
THE OPENING OF THE UNIVERSITY

AT the opening of the university, Morrill Hall stood alone upon the brow of a hill in an open field. There was no street across the university grounds, where Central Avenue now runs, and no bridge spanning Cascadilla Creek. The crowds of people ascended the hill through the cemetery, or wound along the dusty way which passed the grounds of the present McGraw-Fiske house; or the bolder followed the bank of the creek beyond Cascadilla, to a place just north of the site of the present iron bridge, where, by climbing half-way down the bank, they reached the top of a ladder which they descended; they then crossed the stream upon two or three boards supported loosely upon timbers, and climbing the opposite bank by a similar ladder, scrambled to the top through brushwood and forest until they reached the open orchard north of the present lodge of the Psi Upsilon fraternity. They then followed the line of a rambling stone wall which marked the boundary of the university property to the west, along the crest of the ridge in front of the present row of professors' cottages on Central Avenue. Two ravines of considerable depth had to be crossed to reach the eminence where the library building now stands, and where the bells had been mounted on a rough framework of timber.

We have been permitted to use the accompanying contemporary account of the inauguration of the university, by George William Curtis, which, however, veils his own graceful participation in that event.

“ In the very height of the presidential campaign, one bright autumn morning was hailed in the pleasant town of Ithaca, in New York, with ringing bells and thundering cannon, but for no political celebration whatever. Had the little town, dreaming upon the shore of the lake so long, suddenly resolved that it would justify the classic name with which Surveyor-General De Witt blessed its beginning, and as old Ithaca produced a wise man, so the new should produce wise men? The surveyor who so liberally diffused so Greek and Roman a system of names through the hapless wilderness of Central New York half a century ago, would have smiled with delight to see the town decorated through all its broad and cheerful streets with the yellow and red of autumn, and ringing its bells of joy because a university was to open its gates that day. But old Paris, Salamanca and Bologna, Salerno and Padua, Göttingen and Oxford and Cambridge would surely have failed to recognize a sister could they have looked into Ithaca. Indeed they would have felt plucked by the beard, and yet they would have seen only their fair, legitimate descendant.

“ The hotels and the streets and the private houses were evidently full of strangers. Around the solid brick building, over the entrance of which was written ‘ The Cornell Library,’ there was a moving crowd, and a throng of young men poured in and out at the door, and loitered, vaguely expectant, upon the steps. By ten o’clock in the morning there were two or three hundred young men answering to a roll-call at a side door, and the hall above was filled with the citizens. Presently the young men pressed in, and a procession entered the hall and ascended the platform. Prayer and music followed, and then a tall man, spare, yet of a rugged frame and slightly stooping, his whole aspect marking an indomitable will, stood up and read a brief,



FOUNDER AND FACULTY OF CORNELL UNIVERSITY, 1868-69

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simple, clear, and noble address. It said modestly that this was but the beginning of an institution of learning for those upon whom fortune had omitted to smile; an institution in which any person could acquire any instruction in any branch of knowledge, and in which every branch should be equally honorable. Every word hit the mark, and the long and sincere applause that followed the close of the little speech showed how fully every word had been weighed and how truly interpreted. But the face and voice of the speaker were unchanged throughout. Those who best knew what he had done and what he was doing, knew with what sublime but wholly silent enthusiasm he had devoted his life and all his powers to the work. But the stranger saw only a sad, reserved earnestness, and gazed with interest at a man whose story will long be told with gratitude and admiration."

After a graceful and felicitous speech from the lieutenant-governor of the state, an *ex-officio* trustee, the president of the new university arose to deliver his inaugural address. Of a most winning presence, modest, candid, refined, he proceeded to sketch the whole design and hope of the university with an intelligence and fervor that were captivating. It was the discourse of a practical thinker, of a man remarkably gifted for his responsible and difficult duty, who plainly saw the demand of the country and of the time in education, and who with sincere reverence for the fathers was still wise enough to know that wisdom did not die with them. But when he came to speak of the man who had begun the work and who had just spoken, when he paused to deny the false charges that had been busily and widely made, the pause was long, the heart could not stay for the measured delay of words, and the eloquent emotion consumed the slander as a white heat touches a withered leaf. It was a noble

culmination to a noble discourse; and again those who were most familiar with the men and the facts, knew best how peculiarly fitted to each other and to their common work the two men were.

Ithaca had devoted this day to the opening festival of her university, and after dinner, through a warm and boisterous southerly gale, the whole town seemed to pour out and climb the bold high hill that overhangs it. The autumn haze was so thick that nothing distant could be seen. Only the edge of the lake was visible, and the houses and brilliant trees in the streets. Upon the hill there was one large building, and another rapidly rising. At a little distance from the finished building was a temporary tower, in which hung the chime of bells. In front of the tower was erected a platform, around which was gathered a great multitude, eager to attend the exercises which were to mark the presentation of the chime of bells.

The wild wind blew, but the presiding officer made a pleasant speech of welcome, and then the chime of bells was presented to the university in an address of great beauty and fitness.

ADDRESS OF MR. FINCH

“MR. CHAIRMAN AND GENTLEMEN OF THE BOARD OF TRUSTEES:—I am commissioned by Miss McGraw to present to you this chime of bells for the use of the university; and to ask your acceptance of the gift as a token of her interest in the enterprise which, to-day, so hopefully and bravely begins its work.

“She has watched its development, from the dawn of the grand purpose in the mind of its projector, through clouds that often obscured, and amid storms that sometimes assailed it, until now as it emerges into sunlight and begins its generous toil, she brings you a

useful and beautiful gift, with as much of pleasure in the giving as you, I am assured, will feel in receiving it at her hands.

"The same energy and rapidity of execution which in a few brief years has given us a university, manned and equipped, and ready to begin its centuries of work, has enabled her to give you these bells to-day. In eighteen days they were molded, cast, brought to these hills, and placed in their temporary abode, waiting to add their music to the general joy, and weave into melody the hope and happiness of the hour.

"Of these bells there are nine. One of them is the worker of the flock. It will call your young men from their slumbers; summon them to each of the duties of the day; send them to the class room and lecture; parcel out the hours, and guide and rule the days; with a voice, commanding and uncompromising it may be, but with an undertone of melody which cannot fail to suggest the brave and vibrant pleasure that underlies all healthful work both of teacher and of scholar.

"The rest—silent while the imperious worker clangs his call to work—will add their voices in the stillness and calm of the Sabbath mornings, in the serene peace of the Sabbath evenings, and waft over hill and valley and lake, stilling its waves to listen, the grand melodies of the Christian Church, and silence forever the false tale that, because all modes of Christian worship are respected here, all Christian creeds permitted, with the same broad toleration which is the crown and glory of our free republic, therefore there is no moral force, no religious culture here. Ringing their solemn chimes upon the Sabbaths of the year, their exultant notes upon the festivals of the nation, their clearest and purest tones will be reserved for that day of the University set apart to the faithful remembrance of the generous heart and toiling hand that

have set this crown of learning upon the hills; and distant be the day when a tone of sadness shall moan among the melodies of these chimes because that generous heart is still, and that toiling hand at rest.

“ All things teach us lessons; this golden day of October, the brown drift of the autumn leaves, the roar of the water among the rocks, the wrestle of the wind with yonder pines. These bells will teach us lessons if we but learn to interpret their tones.

“ Young gentlemen of the University, what will the bells say to you? They are the generous gift of a lady; therefore never forget to be *gentlemen*; not in the flippant society sense of the term, which means gloves, perfumes, idleness, but, in that broad and grand old meaning, which blends honest and useful labor, spotless integrity, respect for age, kindness to the young, and charity to all in the one word, *gentleman*. If a thoughtless expression rises to the lips, if a hand is lifted in the haste of anger, if tempted to ungenerous or uncourteous deeds, let the daily voice of these bells remind you that she who gave them expects to see you blend with your manly strength the kind heart, the generous hand, the patient forbearance, the thoughtful regard for the rights and feelings of others which make up, as can no mere rank, or wealth, or station, the true American gentleman. If labor grows weary, labor of muscle or of brain; if the classic pages seem dull, the fires in the laboratory burn dim, the figures on the slate dance tormentingly, the rattle of machinery grows painful, the very stars confused and taunting; rouse yourselves, as the great bell swings in its tower, for she who gave it gave it to summon you to work; to steady and regulate the purpose of your lives, to signal not defeat, but victory; and looks to see you earnest, hopeful, determined workers to the end.

" Gentlemen of the Faculty, what will the bells say to you? They are a woman's gift to the institution which is this day placed in your hands. Do not forget, as I am sure you will not, when they summon you to your daily duties, that she who gave them would have you rule the young men committed to your charge by kindness rather than force, by love more than law, by genial summer sympathy, and not with frozen awe and reverence. Let the wall of Arctic ice, which too generally separates teacher and scholar, for once be thawed and melted, and whatever the frozen dignitaries, in their chairs of ice, breathing frost and looking polar icicles, may elsewhere say, believe me, the rule of kindly and genial intercourse, of unaffected sympathy, of personal interest and friendship, will prove the better and the wiser rule, and keep alive your memories in these young hearts when you have gone to the great Teacher whose rule is endless love. Students are not convicts; keep prison discipline for those whose manhood is forfeit to the state. Students are not captives, they are guests; let a genial hospitality usurp the place of bolts, and laws, and lurking spies. Students are not natural rebels; if quick, spirited, impulsive, yet more easily guided by the silken rein, the steadying word, the friendly touch than by the bloody bit and whirr of the vindictive lash. You need not heed prophecies of failure. They who urge you to this rule of love were students once and feel and know that you will never appeal in vain to the instinctive manliness of the student-heart. Let, then, that rule of kindness, which she who gives you this gift to-day most earnestly approves, at once prevail, and among the hundreds crowding to your doors, none worth your care, none fit to learn, none rightfully here, will bring your experiment to failure—not one!

" Gentlemen of the Board of Trustees, what will the

bells say to you? I repeat once more—they are a woman's gift. Do not think that while with unselfish purpose she seeks to aid and encourage this noble effort to bring the highest and broadest culture within the reach of the young men of the land, that she at all forgets, that she ever can forget, the need and the longing of her sisters, all over the nation, for the same high culture, the same broad and liberal education. A generous forethought has opened the door to high intelligence and culture for the daughters of the wealthier classes, but the daughters of the poor will knock at your doors. Bid them be patient, if you will, till your new enterprise is consolidated, till the time is propitious, and the way is clear. But let them see and know, meanwhile, that your hand is on the lock of the closed door, waiting only the safe moment to throw it wide that they may enter in; and then, rescued from frivolous lives, emancipated from the infamous tyranny of fashion, apart from the giddy and painted butterflies that flash and die, feel the inspiration of lofty aims and noble purposes, vindicate not merely the swiftness but the strength of the woman-mind, and elevate and ennoble the sex, while the chimes their sister gave ring clearer and sweeter on the air as they celebrate the justice and mercy at last.

“ Citizens of Ithaca, you with whom I have lived from my cradle, and probably shall to my grave, what will these bells say to you? Hitherto you have gone your way, quietly and soberly enough, in the store, in the workshop, in the office, in the fields; contented if each day added moderately to your gains, but with little to stimulate you to a life beyond that of your daily toil. But, to-day, there is a new sound upon your hills; these bells will ring you on to higher lives, to nobler purposes. They will tell you that new elements are here, and new duties to be done. Never shut your ears to

these college chimes because they remind you of the *example* this day set. Never let it be said that you have had neither part nor lot in this great enterprise which some day will make your homes classic ground. If you could read, as I have done, in letters counted by the thousand, from the boy of the pine woods of Maine, to the poor lad of the western plains, the almost piteous appeals, not for money, nor for bread, but for the means, by any toil or by any sacrifice, of educating themselves for better and nobler lives; if you could know, as I have known, how great a blessing, how broad a kindness could be here bestowed, I think no man among you would stand with folded hands and silent lips. Aid and encourage, support and sustain, I pray you, this Institution so generously founded at your doors; and, in the coming years, the sound of its morning and evening bells will fall upon you in the valley like thanks—like more than thanks—like a benediction.

“ Mr. President and gentlemen of the Board of Trustees, I have only now to fulfill the commission entrusted me, and which is one of the pleasantest duties of my life, with the closing words of gift.

“ *These bells are now yours*—given cheerfully, given gladly, given hopefully; given with the best wishes of a kind heart to all for whom their chimes shall ring; given in full trust and confidence that you, and I, and all who have in any degree the care of this great work, will fail in no duty and prove recreant to no trust.

“ Let the memory of their giver make them sacred from injury or harm; let them ring always harmonies and never discords; let them infuse into the College life, and interweave among its sober threads of practical study and toil, some love of art and lines of grace and beauty; let them teach the excellence of order and sys-

tem, and, above all, let them gather the wandering thoughts, the restless hopes, the absorbing ambitions about that throne where reigns eternal knowledge, eternal peace.

“ As I give you these bells, in behalf of her whose name I trust their melody will always commemorate, it is fitting perhaps that no longer standing between them and you, no more seeking feebly to interpret their voices, I should bid them ring their own lesson, chime their own welcome; and this I can¹ do, perhaps, in no worthier phrase than in the words inscribed upon them; words of a great English poet, destined to live forever; words of the older education carved among the melodies of the new; words that with wide command tell us what the bells shall say forever :

FIRST BELL.

Ring out the old—ring in the new;
Ring out the false—ring in the true;

SECOND BELL.

Ring out the grief that saps the mind;
Ring in redress for all mankind.

THIRD BELL.

Ring out a slowly dying cause,
And ancient forms of party strife:

FOURTH BELL.

Ring in the nobler modes of life,
With sweeter manners, purer laws.

FIFTH BELL.

Ring out false pride in place and blood;
Ring in the common love of good.

SIXTH BELL.

Ring out the slander and the spite;
Ring in the love of truth and right.

SEVENTH BELL.

Ring out the narrowing lust of gold;
Ring out the thousand wars of old;

EIGHTH BELL.

Ring out old shapes of foul disease;
Ring in the thousand years of Peace.

NINTH BELL.

Ring in the valiant man and free,
The larger heart and kindlier hand;
Ring out the darkness of the land;
Ring in the Christ that is to be."

After a few words of reception from the Lieutenant-Governor the chimes rang out "Old Hundred" far over the silent lake and among the autumn hills. For the first time that strange and exquisite music was heard by the little town, "Ring out, wild bells, to the wild sky," and the heavy gale caught the sound and whirled it away. "Ring in the valiant man and free," and the wind was whist, and the heart of the multitude unconsciously responded Amen. Then Professor Agassiz—Louis, the well-beloved,—fresh from the Rocky Mountains, magnetized the crowd with his presence and his wise and hearty words; and with two or three more addresses, and another peal of the chimes, the Cornell University was formally dedicated. The sun was sinking, a fire-ball in the haze, as the people dispersed. The hour and the occasion were alike solemn; and with meditative feet, his fancy peering into the future, the latest loiterer descended.

The Great Tenth Bell, called the "Magna Maria," arrived in Ithaca, June 18, 1869, and was formally presented to the university on June 30, 1869, at the Commencement exercises.

On the bell are the following inscriptions. On one side:

"The Gift of
Mary
Wife of Andrew D. White,
First President
of
Cornell University,
1869."

Below are the following words:

"To tell of thy loving-kindness early in the morning, and of thy truth in the night season."

On the other side are the following lines composed by James Russell Lowell:

"I call as fly the irrevocable hours,
Futile as air or strong as fate to make
Your lives of sand or granite; awful powers,
Even as men choose, they either give or take."

Below are the following:

"Glory to God in the highest, and on earth peace, good will toward men."

Professor Caldwell has thus described the inauguration of studies: "On the twenty-second day of September, twenty-five years ago, about a dozen men, of whom but three are now in the faculty, assembled in a small room of the Cornell Library building down in the town, where the light was almost as scanty as in a photographer's dark room, and held the first meeting of the faculty of Cornell University. A little later other appointments were made, so that the first Register gave a list of twenty-three professors, of whom six are now here. On the sixth of October, the first entrance examinations were held in a large basement room of the Cornell Library building down in the town, under the general direction of the first registrar, Dr. Wilson.

"The English examinations were held in one corner of the room, the examination in mathematics in another corner, the geography in another, and, when all the corners were filled, where there was light enough to write by, the lesser examinations were sandwiched in between. In these examinations all helped; a professor of chemistry had charge of the orthography. It might have been wise to have first examined the professor himself in that branch of English; indeed, the



SIGMA CHI

SECRET

earliest records of the faculty present incontrovertible evidence that the spelling of at least one of its members was not altogether beyond criticism. But there was no time for any such test of the ability of the examiners to do the work assigned to them, and they had to be taken on trust. A professor appointed to teach in one of the departments of natural history had, I believe, to look after the examination in algebra; and so one and another of us was temporarily drafted into this unanticipated service.

"The crudity of this arrangement for the entrance examinations, as compared with the present methods, was no greater than the crudity of everything else in those days. Rickety barns and slovenly barn-yards offended the senses where the extension of Sibley College is now going up; the second university building, now called White Hall, simply protruded out of an excavation, the top of which reached nearly to the second-story windows at one end. The ventilation of the chemical laboratory, in the basement of Morrill Hall, was partly into the library and reading room above it; readers there, not being chemists, did not find the chemical odors agreeable. An ancient Virginia rail fence traversed the site of this building, and its neighbor, Boardman Hall; the minutes of the faculty show that before the end of the first year the modest request was made of the founder of the university, that he permit said fence to be moved one hundred and fifty feet further to the south, in order that there might be a sufficiently large piece of level ground adjoining the campus for the military evolutions, and for ball games.

"Bridges, sidewalks, and even a road between the one university building and Cascadilla, the one home where almost everybody connected with the university lived, either did not exist at all, or were only partially completed. It was a long time before the multitude of

foot-tracks was obliterated, made by the passing of teachers and students down and up the banks of the ravine north of the site of the gymnasium; when snow, slush, and mud alternated with each other in November, even a professor sometimes forgot his dignity and slid down the bank, and by inadvertence not always all the way down on his feet either; the hearty sympathy bestowed upon such an unfortunate by student spectators can be imagined, if not believed in.

"What those teachers and students would have done without Cascadilla for shelter it would be hard to say; for the people of the town had apparently not then learned that there was money in taking boarders; nor were there hardly more than a dozen dwelling houses nearer the university than half-way up East Hill. So Cascadilla was full from basement to attic; and a professor who had not lived there at all was, in later times, hardly considered by his colleagues as having fully earned his right to be a professor in the university.

"There was no heating apparatus in any students' rooms, and on some of the rooms there were no doors. We were destitute of the most ordinary conveniences, even those demanded by decency. Our library, models, apparatus, and collections of various sorts were scattered at various points in England, France, and Germany, and our own country. Our farm was unorganized. Such books as were here could not be read for want of arrangement. The apparatus which had arrived could not be used for want of cases in which to safely keep it. We had no laboratory, save some rude tables in a cellar. Our lecture and recitation room accommodations were wretchedly insufficient, and the dormitory rooms gave but a small part of the accommodation required by so great a number of students so suddenly poured into the town."

CHAPTER XII

ADMINISTRATION OF PRESIDENT WHITE

THE plan of organization indicates the character which the new university assumed, and upon the basis of which it was conducted. The university may be regarded as especially fortunate in the choice of the first professors elected. They were, in general, young men whose reputation and scholarship were such as to promise high success in the administration of the departments of instruction to which they were called. Professor Evan W. Evans, the first professor nominated, was born in Wales. He had graduated with high honor at Yale, and been instructor in mathematics in that institution, and afterward a professor in Marietta College, Ohio. He had contributed to *Silliman's Journal*, and was the author of a text-book in mathematics. His interest in the language of his native country led him to pursue studies in the Cymric literature and philology, in which he had no superior in the United States. The editor of the leading foreign review of Welsh literature has stated that Professor Evans was the only American scholar whose researches in that language had received distinguished recognition abroad. Students of those early days will bear him in grateful memory. His instruction was marked by admirable clearness, and left the impression that the form in which it had been presented was almost the final form of definite and precise statement. Although a silent man, his judgment upon all questions of organization in those early days of the university, was of great

value; that loyalty to conviction, and to friendship, which is characteristic of his nation, made Professor Evans's association valued by all his colleagues.

Dr. George C. Caldwell had been an early student of those subjects upon which the science of agriculture rests, when the general knowledge of the same was largely empirical. His work upon agricultural chemistry had already won favorable recognition. He had studied the methods of agricultural instruction abroad, especially at the famous Agricultural College of Cirencester, England, and had afterward received his degree at the University of Göttingen. A scholar of excellent judgment, careful and exact in all his work, his studies have contributed to the reputation of the university in his department.

Professor Eli W. Blake had graduated both in the academic and scientific departments of Yale University, and had studied later at the University of Heidelberg. He had been professor of physics in the University of Vermont, and, at the time of his election, was acting professor in Columbia College. While his residence here was confined to two years, his work bore the impress of a versatile and enthusiastic scholar, as well as an independent thinker and colleague.

Professor James M. Crafts, professor of general and analytical chemistry, was a graduate of the Harvard Scientific School, and had studied afterward in France and Germany. Some of his original investigations had already been published in the Proceedings of the French Academy of Sciences, and in *Silliman's Journal*. At the time of his election he was an assistant in the Lawrence Scientific School. Although his connection with the university was limited on account of ill health, the private investigations which he has since pursued in France and in this country, have made him

one of the most eminent chemists that America has produced. He became later a professor in the Massachusetts Institute of Technology.

Dr. Burt G. Wilder was a graduate of the Lawrence Scientific School, and a favorite pupil of Professor Agassiz. He had already won reputation as a contributor to various scientific and popular journals, and had published some extremely curious and interesting investigations upon the silk-spinning spiders of the South which had attracted attention. He had also served as an assistant surgeon in the army during the Civil War. During his residence in the university he has trained some of the ablest and most devoted scientists of this country. In investigations in the structure of the brain, and the nervous structure of men and animals, and in the advocacy of a uniform system of nomenclature in anatomy, he has been one of the most active and influential representatives.

Professor Albert N. Prentiss was one of the first graduates of the Michigan Agricultural College—the first institution of the kind in the United States. His scientific investigations had been of high merit, and he possessed unusual ability as an organizer. To his taste and skill as a landscape gardener much of the beauty of the university grounds is due. Few botanists in this country have trained so many eminent scholars. To a character of great refinement and gentleness, he added a passionate love of nature, personal courtesy and capacity for friendship. He had published anonymously one or two novels which received favorable notice, though his authorship was known only to his most intimate friends.

Mr. Lebbeus H. Mitchell, whose name appears in the early announcements as professor of mining and metallurgy, never entered upon his duties. A man of

ability, but of restless and unsettled nature, his character was the index of his life. A soldier in the Civil War, later an explorer in Abyssinia, and at one time a captive there, he served for a time also as vice consul-general in London.

Professor Law, although young, had already become eminent by his contributions to veterinary science. Professor Wheeler was known as an admirable classical teacher, and Professor Morris's training had fitted him to organize instruction in the new field of practical mechanics.

On July 3, 1868, President White wrote to Mr. Cornell that he had engaged Goldwin Smith as professor of English history, and said:

"Of Goldwin Smith, I need not speak; no man has a more noble reputation here or in America. He was one of those in the high places here who stood by us in our fearful struggle, first, last, and always, and his ability places him among the foremost historians of this century. He enters heartily into our plan, and from England goes to America for a term of years, during which he desires to prepare a general history of the development of American civilization. He had thought of taking up his residence at Providence, but now thinks of going to the shores of Cayuga Lake. He is attracted in our direction by the quiet of our neighborhood—by our library, and by hopes of pleasant association with our professors."

Professor Goldwin Smith's name appeared in the first general announcement as non-resident professor of history. In the first catalogue he appears as professor of English and constitutional history. In the second catalogue, which was issued in the same year (1868-69), he appears as non-resident professor of English history. Professor Smith brought to the university not only the ripest scholarship, but an unusual

sympathy with the aims of a new institution. He was willing to see it tested by the demands of this country and shaped by national needs. In a letter expressing his desire to be present at the opening, he said: "You say you wish I could be with you; so I do, because the occasion will be one of the deepest interest; but you would not persuade me to give you any advice. I know too well the difference between the old and the new world; at least the only advice I should give you would be, without ignoring the educational experience of Europe, to act quite independently of it, and to remain uninfluenced either in the way of imitation or antagonism by our educational institutions or ideas. The question of academic education on this side of the water is mixed up with historical accidents, and with political struggles, to which on your side there are happily no counterparts. . . . What I would say is, adapt your practical education, which must be the basis of the whole, to the practical needs of American life, and for the general culture take those subjects which are most important and interesting to the citizen and the man. Whatever part may be assigned to my subject in the course of general culture, I will do what I can to meet the wishes of the authorities of the university without exaggerating the value of the subject, or unduly extending its sphere." Professor Smith's contribution to the study of history in this university possessed a value which cannot be overestimated. During the first years of the history of the university he lectured usually twice a week for two terms in a year. He delivered lectures upon the general and constitutional history of England. It is perhaps not too much to say that, at that time, no such lectures upon history had ever been delivered in this country. Professor Smith is a brilliant word painter, with unsurpassed power of grouping the essential facts

relating to a given period or character, so as to leave a clear and vivid impression upon the mind. A character was mirrored in a sentence; the entire philosophy of a period was compressed into one terse picturesque statement. Associated with all, was a lofty moral judgment presiding over the acts of nations and of individuals, meting out with rigorous truthfulness a nation's falsity to its ideals, or the fatal weakness of some great character. This inflexible moral standard pervaded his judgments, as it has pervaded his attitude toward every living question which has affected this nation since his residence among us. Professor Smith was in sympathy with American institutions. He regarded the republican government as the noblest and grandest achievement of the human race, and its struggle for freedom and liberty as the noblest struggle, demanding sympathy, admiration, and recognition. When we consider that Professor Smith was an Englishman, who had only once before visited America, we must regard his thorough identification with the university, and with all its interests, as one of the most valuable gifts in its history. Soon after his arrival, finding how imperfect was the equipment for literary, and historical study, he sent to England for his own private library, consisting of 3,400 volumes, the choice and valued books of his university life, and of silent study, and presented them to the university. In the following year he gave \$2,500 additional for the purchase of works in history. Thus he signalized his devotion to a new university in a land distant from his own.

A striking and valuable factor in the instruction of the new university was the lectures of President White, who, in addition to the duties of the presidency, filled the chair of history.

Few lecturers in the university were so interesting

as he. While positive and aggressive in opinion, and pungent in statement, he always awakened the interest of those who heard him, and inspired them to an interest in the study of history. They began to read, and never lost their enthusiasm for the subject. Mr. White always illustrated the bearing of history upon the solution of questions of modern politics and social science. "We find a bold and vivid treatment of such subjects as the fall of the Roman Empire; the feudal system; the Crusades; the rise of cities; Mohammedanism; chivalry; monachism; the development of papal power; the development of commerce; Christian clearing up of Europe; the rise of institutions of learning; growth of literature, science, and law; the laboring classes in the Middle Ages; cathedral builders, and medieval sculptors; the revival of learning; revival of art; Erasmus; Luther and the Reformation of Germany; Luther's character, writings, and influence; Ulrich von Hutten; Charles the Fifth; Charles the First; the Reformation in the Romanic countries; the Thirty Years' War. Mr. White's special courses embraced the State Life of Modern Europe. He prepared thirty-seven special lectures upon France, six upon Italy, three upon Spain, four upon Austria, six upon the Netherlands, five upon Prussia, five upon Russia, two upon Poland, and three upon the Turkish power. In this great field of modern historical politics, France was evidently his first choice, and in this special field the French Revolution was clearly the supreme attraction." When we review these striking and suggestive lectures by President White upon French history, we can only regret that the lectures, carefully elaborated, might not have been embodied in permanent form and published.

In choice of subjects, President White preferred to discuss periods and individual men as representative

of movements, rather than the orderly sequence of political events. His lectures were devoted, save, perhaps, in the periods of the history of the Reformation and the history of the French Revolution, primarily to the history of culture. He had prepared elaborate studies of the lives of great artists, and he dwelt with especial fondness and interest upon the history of art as an expression of the intellectual life. He reviewed naturally the history of the Church during the period of the Middle Ages, and in its later influence upon the political life of Europe. He studied the influence of the founders of the great religious orders, but devoted especial attention at that time, and later, to what may be called studies in abnormal opinions. He thus prepared an elaborate course of lectures upon the history of torture and witchcraft. His later writings have embodied much that is curious and abnormal in the history of individual opinion, and especially isolated views of theologians—almost the sole scholars of the time,—who did not possess a knowledge of the discoveries of modern science, but who opposed numerous theories of the physical universe, from quaint and fanciful reasons, often derived from theological speculation. Physical science did not at that time exist. There were chaotic visions of some of the results of modern science, not rising to the dignity of consistency, nor established by induction, but which, being unsupported, were often as much the product of the fancy as the opinions to which they were opposed. They could not challenge universal faith, for they had no foundation, save in the dim, pathetic, and often beautiful dream of some solitary scholar. To withhold acceptance from unestablished truth, where faith may be opposed to unconfirmed science, is as much a duty as the challenge which conservative science gives to unsubstantiated scientific theory.



THE COMMENCEMENT PROCESSION - THE TRUSTEES, PRESIDENT SCHURMAN ESCORTING GOVERNOR ODELL,
JUNE 18, 1902

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The university thus inaugurated, and accompanied by the enthusiastic hopes of the friends of modern education, entered at once upon a period of stern limitation and embarrassment, from its restricted resources. Its wealth was in the future, in the national lands, the value of which would rise with the development of the industrial prosperity of the states in which they were located. An attempt to realize at once the proceeds of these lands would have destroyed the benefits which were to spring from Mr. Cornell's far-reaching purpose. The support of the university was based on the income of Mr. Cornell's gift of \$500,000 and of the college land scrip fund. The fund last mentioned amounted to about \$405,000. Funds for the erection of buildings had to be derived from the interest on the endowment. Thus the university, embodying so vast a scheme of universal education, was limited from the beginning in carrying out the scheme of its founders. The university grounds were those of a country farm, and rough in the extreme. Cattle roved over the campus and were supplied with water from a spring in front of the site of McGraw Hall. Anything like landscape gardening was beyond the wildest dream of any friend of order and beauty. From the funds which had accumulated in the three years from the date of its charter to its opening, all the necessary buildings had to be erected, and chemical and physical apparatus, collections, and books purchased. The funds of the university were all needed for current expenses without this additional cost, while it aimed to embody great departments of instruction which did not exist in other institutions, and was obliged at the same time to make provision for recognized and established courses of study. The faculty, from whom everything was expected, did not at first exceed in numbers that of smaller institutions with a limited course of study. Growth

seemed impossible, and to maintain upon the original scale that for which provision had already been made, problematic. In addition to this, the cost of non-resident lecturers impaired still further the available funds for regular departments of work. A single building had been erected mainly for a dormitory. No provision had been made for a university building with lecture rooms, museums, and general offices. At the same time, the cost of new buildings had to be taken from the regular annual income, all of which was needed for the support of an organized institution in full operation. The limitations and discouragements of those first years can scarcely be overestimated. The only hope of relief was in sacrificing the land upon which the future of the university depended. To have done so would have reduced the university at once to the scale of one of the smaller colleges. Mr. Cornell maintained with a tenacity begotten of a lofty purpose his position that the lands must be retained. In the mean time, the financial difficulties increased. Generous friends gave McGraw Hall and Sibley College at a most opportune time. The execution of the national trust thus became in a degree possible; but financial bankruptcy seemed impending. At the same time the country was slowly approaching the crisis of 1873. Credit and currency, which had been inflated during the war, had to assume a normal standard and relation to business necessities. The trustees intervened to meet a deficit of about \$150,000. The number of students, which had reached 412 the first year, and rose in the third year to slightly above 600, declined from that point. From 1873 to 1878 the numbers remained about the same; from 1878 to 1882 the numbers declined still further, and in one term of this year the number of students in attendance in a single term reached only 312.

In the absence of President White from the univer-

sity, the executive duties developed upon Vice-President Russell, who performed most of the details of administration from his appointment as vice-president in 1870, to his resignation in 1881, serving, in effect, as acting president for about half this period. Trained as a lawyer, systematic in work, accepting faithfully the difficult obligation of subordination where the initiative devolved upon his superior, with a traditional view of college discipline, active in all questions respecting civic order and the well-being of the community, he performed during these years a large amount of essential and exacting work. If, at times, a keenness of sarcasm aroused enmity, not readily forgotten, on the part of the student world, and made his task more difficult, he went on his way conscientiously and loyally, with a devotion to the university never questioned.

President White had been absent for five years in Europe, with the exception of an interval of seven months, in which he was in residence from September to May in 1878-79. The friends of the university felt that his presence was necessary. The alumni passed resolutions at their meeting in June, 1880, asking the trustees to request his return. In obedience to this action, the trustees themselves adopted resolutions expressing their sense of the urgent need of a personal and responsible head of the university, and desiring President White's return if consistent with his plans. Mr. White, therefore, resigned his position as minister to the court of Berlin and, in the fall of 1881, resumed his position at the head of the university. This was the year of greatest decline in the history of the university. In the following year the number of students slightly increased, but it was not until 1884-85 that the number of students equaled the record of thirteen years before. Since this time the growth of the university has been

very rapid. The increase in the number of students has been simply the index of its interior development. By favorable sales of land the endowment of the university has been greatly increased, the salaries of professors advanced, and large appropriations made for fuller equipment and the erection of additional buildings.

On June 17, 1885, President White tendered his resignation of the office of president of the university, it being nearly nineteen years from the date of his original election to that position. He withdrew in obedience to a purpose which he had long since formed. In presenting his resignation he said: "The present meeting completes twenty years since with our dear and venerated friend, Ezra Cornell, I took part in securing the charter of the university, submitted the plan of its organization, and entered this noble board. And now, in accordance with a purpose long since formed, I hereby present my resignation as president and professor of history. The university is at last in such condition that its future may well be considered secure, thanks to your wise administration; its endowment has been developed beyond our expectations; its debt extinguished; its equipment made ample; its faculty increased until it is one of the largest and most effective in our country, and an undergraduate body brought together, which by its numbers and spirit promises all that we can ask for the future." After reviewing the fundamental principles of the university and expressing his satisfaction in their triumph after twenty years, he said: "At two different periods when about to leave the country for a time, I have placed my resignation in your hands and you have thought best not to accept it. I now contemplate another absence from the country in obedience to what seems to me a duty, and must respectfully insist that I

be now permanently relieved and my resignation finally accepted. Although I have but reached what is generally known as the middle period of life, I feel entitled to ask that the duties hitherto laid upon me be now transferred upon another, and that I be left free to take measures for the restoration of my health, to which I have for several years looked forward with longing, and which I hope can be made eventually useful to the university and possibly to the public at large." The trustees in accepting his resignation, which was presented with so much urgency, adopted a preamble and resolutions. "The resignation by Andrew D. White of the presidency of Cornell University becomes an era in its history. For twenty years he had devoted his best exertions, energy, and industry, his large intellect and loyal zeal, to the organization and growth of this institution. The project once conceived, he, hand in hand with its benefactor and founder, pressed it to a successful issue. Their dreams have been realized and their efforts crowned with noble and generous results. How great have been the cares and anxieties during those twenty years, few, if any, can realize. How large and generous his benefactions equally bestowed upon the university and its friends, few will ever know. How beautifully he has created for us friends by his social and personal character; how great has been his influence in our behalf, is to become a part of our history. During these twenty years the respect and affection of all connected with the university towards him has grown and strengthened. The purity of his character, the blamelessness of his life, his noble ambition, his generous and self-sacrificing devotion to the cause of education, his wisdom and kindness of heart, have made his name and person very near and dear to all of his associates."

In accepting his resignation the board expressed the

hope that after a period of needed change and rest Mr. White might renew his relations to the university in a more congenial and less exacting position, and give it the prestige of his high character and attainments. They therefore requested that he would accept the nomination to act as honorary president of the university, and

"Resolved, That the legislature be requested to amend the charter so as to make the first president of the university a member of the Board of Trustees for life."

The position of honorary president he declined in a letter from Paris dated December 22, 1885. While recognizing the confidence and kindness shown to him by the trustees in unanimously offering to him the honorary presidency of the university, he stated that he felt obliged to decline this especial honor on various grounds, "the most important being the consideration that there should not seem to be any division in the executive responsibility." After expressing his grateful appreciation of the proffer of the board to secure legislation making him a trustee for life, he declined this honor from a dislike to special legislation of the sort required, and distrust regarding the precedent which would be established, and requested that the resolution be allowed to rest simply as a most striking expression of confidence. The faculty of the university at a meeting held on the same day expressed its sorrow at the severing of the relation which had lasted since the earliest existence of the university, and formed an essential part in the official life of every one of its members, and which on his side had been sustained with great wisdom and great labor, with inexhaustible enthusiasm, with constant self-sacrifice, and with increasing anxiety for the sound growth and welfare of the university. It also expressed its sense of

the generous attitude which he had maintained toward the faculty in all matters of administration, and of the strong and inspiring influence which he had exerted upon the body of undergraduates and upon the alumni, and the hope that he would continue a member of the teaching body of the university, giving to its deliberations the benefit of his ripe experience and to future classes of students the same instruction and stimulation in historical work that had been previously enjoyed. The alumni also passed resolutions of appreciation and regret.

CHAPTER XIII

ADMINISTRATION OF PRESIDENT ADAMS

UPON the resignation of President White, there was earnest consideration both on the part of the faculty and of the alumni, respecting the choice of his successor. The alumni in New York presented the name of an eminent president of one of the greatest schools of technology in America; others earnestly advocated the election of a president of a great western university, a man of wide experience as a teacher and educator, and in diplomatic life. The choice of the retiring president was his former pupil, Mr. Charles Kendall Adams, of the University of Michigan, his successor in the department of history in that institution. Professor Adams had delivered several courses of lectures upon history here during the absence of President White, and was, therefore, well known to the local Board of Trustees. His experience as an educator and influential guide upon educational questions in the university with which he was connected, a soundness and calmness of judgment upon educational questions, commended him to those who were familiar with his life.

Professor Adams was born in Derby, Vt., in 1835. He graduated at the University of Michigan in 1861, and was, for a time, assistant professor of Latin in that university. He was elected assistant professor of history in 1863, and professor in 1865. Professor Adams was a scholar of great industry, careful and systematic in his work; without imagination, he mastered by assiduous study the authorities in his de-

partment, and presented clearly the results of historical investigation. A teacher, orderly in his methods, he had instituted a department of recognized merit, and of valuable work. A certain sobriety of judgment won respect and confidence. In an elaborate discussion of the qualities required in his successor, ex-President White expressed his views to the trustees with great energy and positiveness. In accordance therewith, at a special meeting of the Board held on July 13, Dr. Charles Kendall Adams was elected president of the university, and was formally inaugurated on the 19th of November, 1885.

President Adams brought to the university an experience of great value as an educator. He had been an attentive student of the various questions discussed in connection with higher learning, to the solution of which he had himself contributed. A man of great industry and method in his work, he brought to the duties of his position certain qualities that were greatly needed, and of high value.

The university had at this time passed through a period of great depression, and stood upon the threshold of a larger future. Opportunities were thus presented to President Adams, which had not been enjoyed by his predecessor. Dr. White had a vision of the promised future, but it was reserved for his successor to enter the promised land.

President Adams's immediate interest was felt in his personal devotion to the work of his position. A president's office was established in one of the university buildings where the president was accessible both by faculty and students at certain definite times, a feature of administration adding greatly to the efficiency of the office.

Under President Adams's wise direction the whole arrangement of the bureau of administration con-

nected with the executive office was remodeled and improved. President Adams was a most laborious and conscientious executive officer, giving attention to every interest which affected the university, of practical and experienced judgment; and it was at once felt that every detail of business received at once immediate and adequate attention. Several extremely favorable features were introduced soon after his accession in university administration, which made the faculty feel that there was an intelligent and sympathetic interest on the part of the presiding officer, not only with all questions of higher learning, but also with the individual interest of every professor. The system of granting a leave of absence to members of the faculty after six years of service for purposes of travel and investigation was a valuable feature of the new administration. The salaries of professors were raised, so that they were more worthy of a university of high standing and influence. All these measures commended themselves to the faculty and contributed to give confidence in the new administration. The period which followed since 1885 was one of uniform prosperity and growth. The presence at all times of a responsible presiding officer, and confidence in a uniform and judicious administration of affairs, contributed to give stability and unity to the progress of the university. Among the important events connected with President Adams's administration from 1885 to 1892, may be mentioned the establishment of the law school, the erection of the chemical laboratory and of the Sage Library, of Lincoln Hall for the departments of architecture and civil engineering, of Barnes Hall, and the enlargement of the Armory, the establishment of the new President White School of History and Political Science, of the State Meteorological Station, and the department of archæology and the clas-

sical museum, the gift of the White Library, and the institution of the University Senate.

THE UNIVERSITY SENATE

At a meeting of the executive committee held October 30, 1889, it was provided that in the case of the appointment of a full professor of the university, no election shall be made except upon the nomination of the candidate by a committee composed of the president and all the full professors of the university. On November 4, 1889, it was provided that the professors thus organized should constitute a body to be known as the Academic Senate. On November 12, the name Academic Senate was changed to University Senate. On December 2, a formal statute was enacted, as follows:

" 1. The University Senate shall consist of the president of the university and all the full professors.

" 2. It shall be the duty of the senate to counsel and advise in regard to all nominations for professorships; to consider and make recommendations in regard to such courses of study as may pertain to more than one faculty of the university; and, in general, to consider and make recommendations upon any question of university policy that may be submitted to this body by the trustees, or the president, or either of the faculties.

" 3. The meetings of the senate may be called by the president, or by the secretary upon the written application of any five members; and at such meetings the president, or in his absence the dean of the general faculty, shall preside. The senate shall have a secretary whose duty it shall be to keep a record of proceedings, and call all meetings under the direction of the proper authority."

It was also ordered that on the reception from the

president of any nomination for a full professorship, "the senate, after proper deliberation, shall vote by ballot yea or nay upon the recommendation; and their action, with any reasons for it which the senate may see fit to submit, shall be certified to the Board of Trustees."

On June 18, 1890, the statute regarding the senate was further modified by making it the duty of the president whenever a full professorship was to be filled to nominate to the senate the person whom he shall consider most worthy to occupy the vacancy. The change thus made provided simply that the president should take the initiative in all nominations, such action in the original form of the statute having been overlooked.

On October 22, 1890, the constitution of the senate was changed by the following statute of the Board of Trustees:

"Resolved, That whenever any full professorship is to be filled, the president of the university shall, upon request of the Board of Trustees or of the executive committee, seek diligently and to the best of his ability, bearing in mind the provision of the fundamental charter of this university, which forbids him to take cognizance of any political or religious views which any candidate may or may not hold, nominate to the senate the person whom he shall consider most worthy to occupy the vacancy to be filled; thereupon the senate, after proper deliberation, shall vote by ballot yea or nay upon the recommendation; and their action with any reasons for it which the senate may see fit to submit, shall be certified to the Board of Trustees, who shall then confirm or reject such nomination. Said confirmation or rejection shall be by ballot, said ballot to be not by a single open vote cast by any one person, but by the ballots of all present and voting."



DELTA PHI

SECRET

The reasons which determined this action are obvious. It was felt that in these important questions there should exist a responsible advisory body, which should take cognizance of the needs of the university as a whole and preserve a certain symmetry in its development. The pressure of individual departments for recognition and enlargement was a constant factor tending often to an undue expansion of any single field of instruction, at the expense of more important departments which demanded recognition. In the increasing field of the world's knowledge, it was necessary to take cognizance of new subjects, and a careful and deliberate judgment on the part of the senior professors was deemed of highest value as an aid in the deliberations of the trustees. Action, in itself admirable, might otherwise be taken without full consideration of all the interests involved.

The question which naturally arose was, how shall the university policy be directed to secure that intelligent and uniform administration which shall enable it to develop in accordance with the advance of science? There could be but one answer to this question, and that was that all questions relating to courses of study, to the bestowal of degrees as well as the nomination of professors, should be entrusted to the appropriate faculty for decision. To entrust the decision of important legal questions to a body of artists, would be as unwarranted as to confer the control of questions of art upon a corresponding body of lawyers. Education is a science, and has a history coincident with the growth of knowledge, and the development of the human mind. It is, therefore, in itself a historical question as well as one of philosophy. The history of every particular science must be investigated in order to choose wisely the methods of study in that science.

There was on the part of the trustees a profound con-

viction that the faculty of the university should be the active and responsible governing body, and that it should determine the character of the instruction, and advise in the appointment of all instructors and professors. The trustees should form the permanent corporation, holding in trust the property, and confirm or reject all nominations, and, in conjunction with the faculty, make all regular appropriations. It was felt that the faculty was alone competent to estimate the amount and variety of instruction required preliminary to a degree, the number of departments and instructors, and the needs of the library, museums, and laboratories. It might properly express an opinion of the expediency and character of all buildings which were to be erected. As regards the establishment or enlargement of departments, the resident instructors who devote all their attention to an institution of learning are best fitted to judge of the wisdom of any change. A multiplication of departments may cause the regular and most essential courses of instruction to be neglected or deprived of the means of enlargement. The institution of a senate such as was contemplated exists in some of the most progressive institutions of our country, and is the established and historic mode of administration in Germany and in most other countries of Europe. In ignoring a system approved by the results of a thousand years, American colleges have made an experiment fraught with immeasurable loss to the efficiency of their development and to the progress of education.

Two methods have been proposed for accomplishing this purpose: 1st, by authorizing the faculty to elect annually two or more delegates to sit with the corporation, participating freely in its deliberations and expressing their views on all questions, becoming thus the medium of communication between the faculty

and the trustees; 2d, by establishing a university senate which may represent the authoritative voice of the faculty to the trustees upon such educational questions. The provision in the statutes of several states, which forbids professors in a college from becoming members of the corporation, is so framed as to exclude those who have devoted a lifetime to the study of educational questions from having any voice in settling the most important interests connected with academic culture. It is too often the case that the voice of the faculty is not heard in all questions affecting the welfare of the university, so that while sitting apparently in the place of authority, they are powerless to correct abuses and carry out important reforms. The law of this state, which formerly forbade professors in colleges from being members of the corporation, was repealed when the Hon. Samuel J. Tilden was governor; representatives of some one of the faculty of Harvard have served in the corporation and in the Board of Overseers repeatedly during the present century. The second method of attaining the end desired, by the establishment of the university senate, was that which was adopted by the trustees of this university. A profound and far-reaching wisdom was manifest in this action. It added dignity at once to the position of a professor and created an *esprit du corps* and sense of responsibility which were in the highest degree a contribution to the advancement of the educational interests of the university. A system so valuable in its results, winning at once the co-operation and enthusiastic participation of the faculty in supporting the executive of the university, and in promoting all interests which advance its welfare, could not have been otherwise obtained.

The expediency of the establishment of a senate was abundantly verified in practice. Previously, there had

been no common organization by which the members of both faculties, viz., the Academic and that of the Law School, could meet together for mutual counsel or authoritative action. Many questions affecting the interrelation of the Law School and other departments of the university demanded such consideration in common. The provision establishing the Law School, which permitted students in the academic department to elect work in the Law School to a limited extent during the last two years of their course, as well as the qualifications and terms upon which such liberty shall be allowed, as well as the question of a common calendar for the two faculties, demanded an organization such as the senate. In practical operation, it abundantly vindicated its establishment. A conscientious effort on the part of professors constituting any group within the senate to secure candidates of the highest reputation and personal standing for the chairs which were to be filled, was manifested. All appointments during the period of the existence of the senate were made after a careful deliberation and comparison of the qualifications of all candidates named, and all appointments received the cordial support and endorsement of the faculty. Professors so elected came to the university with the consciousness of the approval of their appointment and a welcome to their new field of labor. The senate ceased to exist by action of the trustees, October 6, 1893. President Adams resigned in May, 1892, and was elected soon after president of the University of Wisconsin.

President Adams in his resignation stated that the cause was due to the grave and seemingly unreconcilable differences of opinion in regard to matters of administrative importance. The exact cause and nature of the difficulty to which reference is here made, if such a difference really existed, was unknown to the faculty.

In the earlier years of President Adams's administration, differences of views between him and the local board, and even differences of views in the faculty, had been felt. It is certain that these latter differences had passed away long before his resignation. An adverse view of his administration has been expressed at times among the alumni, much of which was a survival of the original opposition to his election. Voices of this kind had, however, largely become silent. A sincere affection for the university, and a desire to serve it successfully, were manifest upon his part. His resignation therefore came as a surprise. Had it occurred earlier in the history of his administration, it would have seemed natural, but not at the time it was tendered. President Adams had a high ideal of the qualities necessary in professors, both as teachers and investigators, which were demanded by modern learning. His nominations, though possibly at times personal, were with few exceptions of high merit. Even though the approval of the senate did not always follow his nomination, it is true that the names presented were usually those of men of high reputation, who have since won success in the world of scholarship elsewhere.

CHAPTER XIV

PRESIDENT SCHURMAN'S ADMINISTRATION

THE choice of the trustees for a successor to President Adams devolved upon Dr. J. G. Schurman, professor of philosophy in the university, and dean of the Sage School of Philosophy. He was chosen at a special meeting of the Board on the 18th of May, 1892. A native of Prince Edward Island, a subject of the Queen, he became an American citizen a few months after his inauguration. During the period of his connection with the university, he had established a reputation as a brilliant lecturer upon philosophical subjects, and his private lectures as well as his public and more popular lectures had been largely attended. He possesses in a remarkable degree the gift of lucid exposition and analysis of philosophical systems. A series of lectures upon theism, *Belief in God* (1890), which he had delivered before the students of the university, and later before Andover Theological Seminary, and had published in a volume, exhibit great acuteness in stating and criticising, from a scientific and philosophical standpoint, the current arguments by which this doctrine is defended. He had also published a volume entitled *The Ethical Import of Darwinism* (1888).

Naturally an advocate, a mind assuming instinctively and unconsciously a dialectic attitude, relying confidently upon the soundness of any position capable of logical defense, he entered upon his duties with great energy, and with a desire to carry forward the work

which had already been begun. His inauguration took place on November 11, in the Armory. In a series of addresses in response to a welcome on behalf of the students, the faculty, alumni, and trustees, as well as in his formal inaugural address, the modest bearing of the young scholar and his evident sense of responsibility impressed all in his favor, even those to whom his election had come as a surprise. To the students he said: "It is you who constitute the University; in its essence you are the University. The students are the final cause of its existence. My young fellow-workers, we are all here for your sakes. And all we have and are is yours. Take hold then with all your organs on the life that environs you; and let the thews of your minds be nourished and strengthened by the truth on which spirit feeds. The variety of the intellectual life of Cornell University is itself a liberal education to those who know how to use it. Here, while learning everything of something, you may also learn something of everything. And with all your getting, get wisdom. Conduct is not merely three-fourths of life, as Matthew Arnold said: it is the whole of life. And it is my earnest desire and prayer that Cornell University may go on to evolve a more perfect type of manhood,—a manhood which, shuffling off the animal coil and fulfilling the divine idea of man, shall attain to a sense of honor that feels a stain like a wound, to an integrity that will not palter with the truth, to a justice and kindness which, in their ministrations, go out to meet the claims and needs of others, to a gentleness which is harsh with nothing but meanness and a tolerance that forgives everything except hypocrisy, and to a reverence and piety which, transcending all the sublimities of Time, go on to commune with the Spirit of Life and Truth and Love Eternal. Students of Cornell University! this is your

moral vocation. To keep it constantly before you is the highest duty of your President."

To the alumni he said: "And you, older sons and daughters of *Alma Mater*, I have heard your words with joy as I shall obey your summons with alacrity. The spirit of Cornell University is mine as fully as it is yours. And it bids us all work together for the liberal and practical education of the youth of all classes and professions of our people. It is for you to consider how you can most effectually maintain the University which from this time on must be so largely entrusted to your keeping. Without you we can do nothing; with your aid all things are possible. Alumni, I appeal to you because you are strong. Alumnae, I appeal to you because you are quick-witted. We need the help of both. A giant's work is before us. But through your heroism we shall triumph." To the faculty: "Fellow-teachers, I desire to magnify our office. We are training minds. And, as Emerson most truly said, 'the main enterprise of the world for splendor, for extent, is the upbuilding of a man.' Methods of education, like metaphysics, must be reconsidered by every generation. Therefore, besides teaching and investigating, you must shape our educational politics. And grave educational issues are now before you. Within the very general limits prescribed by the charter, you must determine the constituents of a liberal culture, and of a professional training, and fix their proper relation to each other. All culture should be humanistic and naturalistic at the same time; but it is no easy matter to adjust the claims of each. The humanities are indispensable; but the end is humanity: and it is at least an open question whether the English language and literature are not the most effective of all liberalizing disciplines. Cornell University must settle all such questions on their own merits. As

Goldwin Smith said at the foundation of the institution, it is for Cornell 'to remain uninfluenced, either in the way of imitation or of antagonism, by other educational institutions or ideas.' Gentlemen of the Faculty, it is your privilege as it is your duty, to settle our educational problems in the way you think best. The President is your chairman; he is the exponent of your ideas and the executor of your resolutions. But yours is the responsibility of framing the legislation he administers."

In his inaugural address he reviewed rapidly and eloquently the history of the university, emphasizing the needs of special departments, but laying especial stress upon the relation of the university to the state of New York, and presenting the claims of the university upon the state in return for the free education which the university offers to more than five hundred state students, in addition to students in the department of agriculture. President Schurman advocated for the first time the erection of halls of residence for the students. He closed with this statement of the province of the university: "Its ends are the ends of the state. It is dedicated to truth, and to utility; and between these there is no incompatibility; for, as Plato has well said, the divinest things are the most serviceable. We are at once realistic and idealistic. And while we cherish the old we are always in quest of something better. The genius of Cornell University stands on the solid earth; and while his eyes front the dawn, the ancient heavens are about him, and through all its resounding spaces he hears the noble mother call, Excelsior! So may it be! So shall it be; for the people of New York will not suffer either private gifts or public grants to fail us."

During the first year, an independent Summer School was established under the voluntary direction

and instruction of certain professors. The attendance was not large, but 85 were in attendance, who were either teachers or advanced students, while about thirty were undergraduates, or students preparing for the university. In the following year, the attendance rose to 142. A striking feature of the initial instruction was the large number of college graduates who were in attendance, numbering 167 in the second year of the school. The Law School also held a private summer session, in which 37 students were enrolled, of whom 14 were college graduates.

The year was noticeable for the active interest in the university manifested by the state executive, Governor Flower. He called attention to the fact that the education of state students costs the university \$60,000 a year, while the university received, under the terms of the Federal Land Grant, but \$18,000. He showed how the state of Ohio appropriated more than a quarter of a million dollars towards its Land Grant college, while the state of California had appropriated more than two million dollars for the buildings and equipment of its own college. If the expense of educating each student annually was \$330, the entire cost of the financial benefaction which Cornell University bestows upon the state of New York was, at that time, \$160,138, with an attendance of 1531 students.

The appropriation by the legislature in that year of \$50,000 in aid of the College of Agriculture was granted specifically for a building for dairy husbandry (1893).

At the meeting of the trustees of June 15, 1892, a committee was appointed to arrange for the appropriate observance of the twenty-fifth anniversary of the organization of Cornell University. It was decided to arrange for the celebration of the opening of the university on October 6, 7, and 8, 1893. Such an occasion afforded an opportunity to review the his-

tory, and to estimate the influence of the university as an educational force in the nation, in the twenty-five years of its existence, and for a reunion of former students and friends, who were present in large numbers. The exercises began on Friday evening, October the sixth, with a reception in the University Library, at which delegates from other universities and invited guests were present.

Among the attractions of the library many recent additions were exhibited, including the Zarncke Library, previously one of the finest collections for the study of German literature and philology among the private libraries of Germany, which had been recently presented to the university by Mr. William H. Sage; a rare Dante collection from Professor Willard Fiske; several richly illustrated volumes upon events in Russian history, from the Hon. Andrew D. White, minister to Russia; two portraits by the artist, Mr. J. Colin Forbes, one of the Hon. Ezra Cornell, painted in accordance with a resolution of the legislature of the state of New York, for the State Library in Albany, and a replica of a foot-length portrait of Mr. Gladstone, painted for the Liberal Club in London.

The literary exercises in connection with this event were held on Saturday, October 7, in the lecture room of the library. The oration upon this occasion was delivered by the Hon. Chauncey M. Depew. The address which the eloquent orator delivered upon this occasion was perhaps one of the most notable of his life; it glowed with the emotion which such an academic occasion suggests, and with the spirit of a scholar who is permeated with the thought of the glory of the history of universities in the past, and of their place in the world's progress, and who, at the same time, is full of memories of academic life which are at once tender and ennobling. The occasion, aside from

politics and the fever of political life, was worthy of a celebration commemorating a university which has been representative in the history of the new learning. At the same time it was a glorious prophecy of the future, and of the influence which the university should exert in the coming educational life of the nation. Sel-dom, possibly never, has the province of the university been portrayed with more eloquence and beauty than was done by Mr. Depew on this occasion. One of the noblest passages of the address was, as was proper, a tribute to the memory of the founder, with whom Mr. Depew had been personally associated:

"The life of Ezra Cornell is a lesson and an inspiration. The study of his struggles and success is a liberal education. Our meeting would lose much of its significance if it failed to enforce the lesson of the career, and commemorate the character, of the founder. Sixty-five years ago young Cornell, who had just attained his majority and started out to seek his fortune, after a walk of forty miles rested upon one of the hills overlooking this beautiful lake. This reticent Quaker was passionately fond of nature, and he was entranced by the superb panorama spread out before him. Few places on earth possess so many scenic attractions. The only view I know which compares with this, is the view from the Acropolis, at Athens, with the plain in front, the Pentelic mountains behind, and the blue *Ægean* in the distance.

"The young mechanic had neither friends nor acquaintances in the village which nestled at his feet, and his worldly possessions were all in a little bundle on the end of the stick which served for staff and baggage-wagon. He had no money, and only a spare suit of clothes; but with health, good habits, ambition, industry, and a perfect knowledge of what he intended to do, and an equal determination to do it, he entered

Ithaca a conqueror. No delegation of citizens met him at the gates; no triumphal procession bore him in a chariot; no arches spanned the streets; but the man who was to make this then secluded hamlet known throughout the world had done for Ithaca the greatest service it could receive by deciding to become its citizen. Though poor, he was far removed from poverty. His situation illustrates one of the hopeful features of American conditions. Neither doubt nor despair was in his mind. He had found his place and he knew he could improve it. He saw his ladder and began to climb it. It is the genius of our people to get on, and it is the pleasure of the community to help and applaud. Occasional failures test the metal of the aspirant, and hard knocks develop grip or gelatin. There are, unhappily, suffering and helplessness incident to the practical workings of the doctrine of the survival of the fittest, but vigor and manhood win their rewards.

"Faith and works were the principles of Ezra Cornell, and the carpenter's bench a platform and preparation for larger efforts. . . . As a carpenter he improved the methods of his village master; as a mechanic he devised machines which overcame unexpected difficulties; as an unprejudiced, practical man, he became familiar with the uses of electricity while the professor was still lecturing upon its dangers.

" . . . The inventor needed an undaunted and indomitable man of affairs to demonstrate to capitalists its possibilities, and to the public its beneficence, and he found him in Ezra Cornell, who saw its future, and upon his judgment staked the accumulations of his life and the almost superhuman labors of a decade. He owned electric shares of the face value of millions and went hungry to bed because he had not the means to pay for a meal, and his family suffered because they

could not be trusted for a barrel of flour. But neither want, nor debt, nor the sheriff, could wrest from him his telegraph stock. I know of no more dramatic scene in the lives of any of our successful men than the spectacle of this potential millionaire tramping through the highways and byways of penury, suffering, and sickness, upheld by his sublime faith in his work and the certainty of its recognition. Suddenly the darkness was dispelled and the day dawned. People woke up to the necessity of the telegraph for the government, and for commerce, and Cornell's faith had coined for him a fortune.

" . . . A most noble and brilliant representative of this class was the founder of this university. Prosperity made him neither an idler nor a voluptuary. It added fresh vigor to his work, enlarged his vision, and broadened his sympathies. No mawkish sentimentality nor theatrical surprises were in his character. He determined to devote a portion of his fortune to the welfare of his countrymen and countrywomen, and decided that the best way was to give them the education and training with which to help themselves. He had the self-made man's belief that a successful career is possible to every one who tries, but he knew from sore experience how difficult is progress for the poorly equipped in the sharp competition of life. He did not give up money-making. On the contrary, the more beneficent the purpose to which he found it could be applied, the harder he worked to gain more. His was the ideal of the divine injunction to be 'diligent in business, serving the Lord.'

" It was my privilege as a young man, and the youngest member of the legislature, to sit beside Ezra Cornell. I learned to love and revere him. In those days, so full of the strife and passions of the Civil

War, it was a wonder and inspiration to listen to the peaceful plans of this practical philanthropist for the benefit of his fellow-men. The times were big with gigantic schemes for the acquisition of sudden fortunes, and his colleagues could not understand this most earnest and unselfish worker. To most of them he was a schemer whose purposes they could not fathom, and to the rest of us he seemed a dreamer whose visions would never materialize. These doubters of a quarter of a century ago esteem it a high privilege to stand in this presence, and an honor to have the opportunity to contribute a chaplet to the wreaths which crown the statue of Ezra Cornell."

Other addresses were delivered by the Hon. Stewart L. Woodford, LL. D., who, as lieutenant-governor, had responded on behalf of the state at the opening of the university; by Chancellor Upson of the University of the State of New York; by Professor G. C. Caldwell in behalf of the original faculty; and by the Hon. Joseph C. Hendrix, member of Congress from Brooklyn, one of the early students. An interesting feature of the occasion was the presentation to Dr. Burt G. Wilder, by Dr. Theobald Smith, of a *Festschrift*, a volume containing contributions in science from his former pupils, designed to express their gratitude for his instruction and services to the cause of science; also of a manuscript history of the university, prepared by Professor Ernest W. Huffcut.

General regret was felt that President Cleveland, who, as governor, and at other times, had always manifested his interest in the university, was unable to be present, owing to the demands of important legislation in Congress.

At the dinner which followed congratulations were received from ex-President White in St. Petersburg, to which a grateful response was sent; from General

Meredith Read in Paris, the only survivor of the ten trustees named in the charter of the university; and a letter was read from Professor Goldwin Smith in Toronto, who regretted his inability to be present. Speeches were made in behalf of the Trustees by the Hon. S. D. Halliday; the Faculty, by Professor Crane; the Commonwealth, by the Hon. Chauncey M. Depew; Sister Institutions of the East, by President Seth Low of Columbia College; the Earlier Students, by Hon. Joseph C. Hendrix; Theosophy and Education, by General A. C. Barnes; Practical Education, by Andrew Carnegie; Sister Institutions of the West, by President Cyrus Northrup of the University of Minnesota; The University and the Press, by St. Clair McKelway; the Education of Woman, by President James M. Taylor of Vassar College; the College Graduate and the Men of Affairs, by Hon. Oscar A. Straus, late United States minister to Turkey; the Later Alumni, by Seward A. Simons, A. B., '79.

On Sunday, the 8th of October, an impressive anniversary sermon was delivered in the Armory by the Right Reverend William Croswell Doane, D. D., Bishop of Albany and vice-chancellor of the University of the State of New York, thus closing this academic festival.

In the following year, an effort was made to elevate and equalize the requirements for admission to the general courses, and to reorganize those courses. This subject had received national importance through a report of a committee upon education appointed by the National Teachers' Association. As a result of the discussion by the faculty, the following changes were made in the requirements for admission: An additional year of French and German was required. For admission to the course of philosophy, the candidate was required to pass in French, German, or higher mathematics. It was provided in 1896 that the



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alternative in mathematics should be withdrawn and the requirements in French and German doubled. In order to make the course distinctive, it was provided that the major part of the elective work for the degree of Bachelor of Arts and Doctor of Philosophy should be in literary, historical, philosophical, or mathematical subjects, and for the degree of Bachelor of Science in the physical or the mathematical sciences. The course in letters was abolished. This course had, for many years, lacked the rigid requirements for admission of some of the other courses and had become a favorite course with students whose attainments were not sufficiently advanced or exact to receive the other degrees.

Governor Flower showed his sagacious view of the industrial demands of the state by recommending an appropriation for a State Veterinary College. He showed that the value of live stock in the United States was two billion dollars, while that in the state of New York alone amounted to two hundred million dollars. The legislature appropriated fifty thousand dollars as an initial gift for buildings for a State Veterinary College, which sum was increased in the following year to one hundred and fifty thousand dollars.

The question of academic discipline has in most colleges been a difficult one; either there has been a lack of oversight over the conduct of students, or the supervision has been minute and irksome and assumed a character of espionage. Such a system was detrimental to manly independence on the part of students. Personal dignity and responsibility were impossible under the surveillance of tutors or proctors. In few universities have students been so uniformly treated as independent and responsible for their actions. The mutual relations of the students and the faculty had always been a striking feature of the university. The faculty were regarded as the friends of

the students, and in case of any immature prank, or breach of order, the students, under the wise guidance of the advice of those in authority, had recognized their error and atoned for any mistake. A young student, experiencing for the first time the full enjoyment of freedom, and yet not entirely free from boyish excesses, remarked to one of the professors, "I do not know why it is that whenever I do not feel or do rightly, I always come to you." Boyish frankness thus showed how far sympathy appealed to him, and was a corrective in his conduct. While university discipline cannot be ignored or left to itself, its operation should be silent, and not in an organized form so as to become a menace and a standing object of attack. In such cases, the effects of discipline are lost, and the spirit of antagonism is created in the student world. The fact that discipline is administered by students does not relieve it from this danger, but rather emphasizes it. In the beginning, discipline had been administered by the faculty as a whole. Such discipline was fair and indulgent. It was not always uniform, but was in the end prevailingly just. The student world is amenable to reason, and its sober and just instincts may be appealed to in most cases as a guide to conduct. The faculty felt the unpleasantness of consuming a large amount of time in deliberation in single cases. It felt that it as a body suffered by assuming the position of a police officer or a magistrate. At one time discipline was entrusted to a committee of five of the faculty, chosen by that body. Some university officer had always been present to guard the integrity of examinations. It was felt that the faculty was responsible for the record of the work of every student as certified to by his degree.

Towards the end of 1902-03, certain agitation against proctors in examinations led to the withdrawal of the same, in part, and to a subscription by the student

that the examination paper submitted had been without assistance and was his own work. A Student Self-Governing Council was established, consisting of four seniors, three juniors, two sophomores, and one freshman, under the chairmanship of the president of the university. The introduction of this system can hardly be said to have been generally demanded by the students. In fact, to erect a permanent tribunal where none had previously existed, to formulate and incorporate discipline visibly, so that it was everywhere manifest, where before it had been silent, invisible, and efficient, was a proceeding which appealed only to a limited number of students. Still it possessed a specious attraction and was adopted. The danger of multiplying judges, and scattering them over the student community, is that there are few gatherings of students where some judge is not present. It has, therefore, an indirect tendency to poison social intercourse and to make it uncertain whether the unconscious acts and conduct of students are not under observation by some fellow student. The system existed for several years, but became soon the target of the witticisms of the college press. College politics influenced the choice of members of the council. The position of judge was no longer a sinecure, but he became exposed to the shafts of possible suspicion. The unfortunate condemnation of an innocent student, and the publication of the particulars of his offense, aroused a sense of distrust of the decisions of the council. It, however, continued its office until the division of the university into colleges, when the subject of discipline was entrusted to the faculty of each college. Here, however, fresh difficulties arose. Instead of having a single tribunal, there were six separate tribunals not uniform in the administration of discipline or in the penalties imposed. The fact that students were citi-

zens of the university as a whole, and often under instruction at the same time in several colleges, made it necessary to establish a uniform and central committee on Student Conduct in place of the several jurisdictions which existed up to that time. This system has prevailed up to the present time. The committee is chosen by the faculty, and is presided over by the dean of the general faculty. Its work has been uniform and just, and no question has arisen as to the fairness of administration of justice.

The year 1894-95 was marked by a radical change in the constitution of the university, namely, by an increase in the number of trustees. The Board of Trustees had formerly consisted of seven *ex-officio* trustees, one life trustee, and fifteen elective trustees; two-thirds of the latter being elected by the board, and one-third by the alumni. Even when the number was of this size, it was larger than that of similar boards in other universities. That feature of the charter which provided for the representation of certain state officials in the Board of Trustees had proved in effect of no advantage. Occasionally, a governor or state officer had recognized the dignity of the honor thus conferred upon him and the opportunity of usefulness presented, but more often the *ex-officio* trustee who might be an alumnus of some other college, or possibly *ex-officio* trustee of some other university, regarded his duties lightly and seldom attended the meetings of the board. In many cases the governor of the state was never present during his entire term of office, and in most cases few of the *ex-officio* trustees attended the meetings of the Board. Not infrequently the Superintendent of Public Instruction has been present, but more often the chancellor of the University of the State of New York has been absent. In fact, it is a question whether it is desirable for the permanent policy

of a university to be decided or capable of decision by the accidental presence of a state official whose term of office is limited, who cannot be responsible for the execution of the policy for which he may have voted, and who may be unfitted, both by nature as well as by experience, for administering an educational trust of such magnitude. The considerations which led to the enlargement of the Board of Trustees were the expediency of having great centers of population represented in the Board. If trustees were chosen largely from Ithaca, the university would become a local institution. It seemed therefore desirable to elect trustees who should represent the interests of the university in the great cities of the state. Unconsciously, perhaps, the tendency to elect citizens of Ithaca to the Board had limited the number of trustees from other places. The character of the university was therefore amended so as to double the number of elective trustees, the mode of election to be the same as before. This act became a law on March 8, 1895. Of the fifteen additional trustees, five were to be chosen by the alumni, thus doubling its representation in the board, and ten by the full board. The board thus consists at the present time of thirty-nine members, of whom eight are *ex-officio*, and one is a life trustee, being the oldest lineal male descendant of the founder, and thirty elected for a term of five years, of whom the Board choose four, and the alumni two, annually. It may be a question whether aught valuable has been established by the enlargement of the Board of Trustees in the form adopted. The alumni trustees are the most interested of the entire body of trustees, and most familiar with the needs of the university. A large body is apt to be unwieldy, to weaken responsibility, and to make members indifferent to the personal share of administration which devolves upon them.

If the question be asked whether the present organization has secured a wider interest in the university, in the great centers of the state, and in adjoining states, a negative answer must be given. It is seldom that over two-fifths of the trustees are present at a meeting, and one-half of the full attendance is practically never attained. So far as the choice of trustees by the full Board has fallen upon the alumni, it has secured men who are in all cases in sympathy with its interests and active in promoting them. It is probable that a limitation of the number of local trustees and the choice of representative men outside the city of Ithaca, possibly in adjoining states, would give the university a character other than that of a local university and one provincial in its administration. It is, however, true that the largest constituency of the university is found in the state of New York, and its largest number of trustees must be chosen from that state.

Formerly, meetings of the trustees were held in other cities, thus facilitating the attendances of the trustees from abroad, and making the local influence less dominant.

The recognition by the state legislature of the services which the university rendered to the state has been conspicuous during the administration of President Schurman. In view of the annual contribution which the university made to the state, by educating nearly eight hundred students free of expense, and providing scholarships for others, it was proposed that the state should establish a State Normal College at the university, for the higher training of teachers. Such a college would assume the character of a professional school of the highest kind, ranking with the professional schools of medicine and law, and based upon thorough preparation of collegiate courses.

Such an institution would stand above the normal schools in rank, and would give to teachers a scientific training in the philosophy and practice of their profession.

The erection of an astronomical observatory and the establishment of a professorship of astronomy were seriously considered at this time. While the atmospheric conditions of the lake region of central New York do not afford the clear sky or the dry air which is necessary for the highest class of astronomical investigations, still it was felt that this great field of science, so rich in its revelations in chemistry and physics, and of importance in determining any question of the origin and early history of the universe, should find recognition here. It has been found necessary in the case of other universities to locate astronomical observatories away from the clouded atmosphere of cities, as well as above the sea level and the humid air of the country. The immense expense involved in equipping such an observatory and providing it with all the instruments necessary for physical research has, up to the present time, made it impossible to undertake such an enterprise. Higher astronomy would appeal to a few expert advanced students. The equipment of such an observatory would be in the interests of pure science and investigation, rather than for the instruction of any considerable number.

The year 1895-96 was marked by several important changes in the organization of the university, as well as in certain features of the degrees offered. Up to the date of the establishment of the School of Law, in 1886, a single faculty had exercised jurisdiction over the departments of study. The law faculty was made autonomous at the same time, and, as many of its courses were pursued by students in the general courses, a correlation of authority and of privilege

on the part of students in the two faculties was established. A single faculty was adequate at the opening of the university to deal with all educational questions. The number of students had, however, increased in 1896 from three hundred, at the opening of the university, to seventeen hundred. The growth of the various technical courses and the enlargement of the general courses had introduced new fields of study. At the same time, the work of the students was more and more specialized in distinctive fields. It therefore seemed desirable to group the students according to the direction of their work and, in place of a single faculty, exercising jurisdiction over all, create separate colleges, each under the jurisdiction of a director or dean. The university was therefore divided into the Graduate Department, the Academic Department, the latter being distinguished later as the College of Arts and Sciences (1903), the College of Law, the College of Civil Engineering, the Sibley College of Mechanical Engineering and Mechanic Arts, the College of Architecture, the College of Agriculture, and the New York State Veterinary College. To this list were added subsequently the New York State College of Forestry and the Cornell University Medical College in New York City, established in 1898. The Graduate Department was placed under the immediate jurisdiction of the general faculty, under whose sanction all advanced degrees were awarded.

Questions of discipline were referred to the faculty in which the student was registered. Each faculty has also control of the standing of students in that college, with the right to drop or to dismiss any students who were found deficient in scholarship.

At the same time, it was recognized that while a student might be registered in a technical course, the majority of his studies would be embraced in the

College of Arts and Sciences. The amount of instruction in general subjects given by the College of Arts and Sciences varies in the different departments, amounting often to from sixty to seventy per cent. of the entire work of the students. A student would thus be formally registered in a given college, and be amenable to that college, while his work was pursued in the College of Arts and Sciences. It is important to recognize that while in recent years the growth of scientific and technical study has increased in all universities, the number of students in the former course in Arts has possibly not kept pace with this new demand for professional education; still, as a matter of fact, every increase in the number of students has created in effect a demand for additional instruction, in the department of arts. Thus, while this important college has not perhaps formally grown, the amount of instruction required in it, and the number of students pursuing courses falling within its province, has vastly increased. It may be a question whether the appropriations for this college, which in addition to the instruction of its own students furnishes a major part of all the instruction in the other colleges, except those of Law and Medicine, have kept pace with the amounts bestowed upon the technical schools.

The New York State Veterinary College was established by an act of the legislature in 1894. Legislative appropriations for the support of the college were made in the laws of that year and of the subsequent year, appropriating \$150,000 for the construction and equipment of suitable buildings. The legislature of 1896 made provision for the college by appropriating \$25,000 for its support, including such appropriation in the act providing for the maintenance of the state government and the various state institutions. The college was opened in the autumn of 1896. In the fol-

lowing year, on May 22, 1897, a statute was passed providing for the administration of the college. It was provided that no tuition fees should be required of students pursuing the regular veterinary course, who for a year or more immediately preceding their admission shall have been residents of this state.

The establishment by the state of New York of a State College of Veterinary Science led in this year (1895-96) to the organization of the Veterinary College and to a redistribution of certain branches of science.

Professor Gage became professor of microscopical technology, histology, and embryology; Dr. Fish became assistant professor of veterinary and comparative physiology, *materia medica*, and pharmacy; Dr. Hopkins became assistant professor of veterinary anatomy and anatomical methods.

As a corollary to absolute freedom of election offered in the College of Arts and Sciences, in place of the three degrees in the general courses which had previously been given, Bachelor of Arts, Bachelor of Science, and Bachelor of Philosophy, one degree was established, that of Bachelor of Arts. This action was perhaps the most radical at the time that has been taken by any college. It was under consideration and debate for nearly half a year; great diversity of views was manifest, and even strenuous protest. It was argued on one side that a degree should indicate a distinctive line of work, that a student who went forth trained in a classical language should bear a degree which was the index of such study; that a student whose work was mainly in science and mathematics should bear a degree corresponding to the course which he had pursued. On the other hand, it was held that the absolute equality of all studies as instruments of culture and as a preparation for the work of life should be recognized, and that one degree adequately repre-



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sented a course of study in the College of Arts and Sciences, whatever the subjects pursued. The action thus taken was hotly debated in educational associations, and has not been universally adopted. Strenuous advocates of the old-time classical culture, and of the original value of the degree of Bachelor of Arts, have, in certain colleges, even in enlarging the field of election, differentiated the character of the work by different degrees.

The thesis previously required of all students for the bachelor's degree was made elective in 1898, thus doing away with the last trace of required work in the College of Arts and Sciences.

As a corollary of this action, the advanced degrees of Master of Philosophy, Master of Literature, Master of Science, and Doctor of Science were abolished, and in place of them the degrees of Master of Arts and Doctor of Philosophy employed.

Meantime, one of those periodical declines in attendance which affect all institutions of learning was manifest. The maximum number of students attained in the year 1893-94, 1,801, was not reached for three years, when the attendance was 1,808; in the following year it was 1,835. The explanation of this decline is largely due to the financial crisis of 1893, which was not fully felt until the subsequent year. Students who were in college during that year naturally remained, even with personal sacrifice on the part of their families, in order to complete their course. Increase in the requirements for admission may have affected in part this decrease, but as these requirements did not go into effect fully until 1898, when the number of students had increased nearly three hundred, it is probable that the diminution was due mainly to the social and financial condition of the time.

President Schurman, in his report for 1894-95, dis-

cussed the question of the superannuation of professors, maintaining the wisdom on the part of the university of making provisions for the retirement of professors at a definite age, with a pension for the remaining years of their lives. He called attention to the fact that many of the older professors had accepted positions here when salaries were necessarily limited, thus, in numerous cases, suffering a disadvantage in comparison with the higher salaries paid to professors of recent appointment. He outlined a system which exists in the public schools of Toronto, and in part, though imperfect in detail, in the University of Toronto. He suggested that no wiser, more fruitful, or economical disposal could be made of the Fayerweather legacy, at that time estimated at from fifty to one hundred and fifty thousand dollars, than to establish with it a Fayerweather Pension Fund; also, that so much of that fund as had already been turned into the general funds might be withdrawn and employed for this purpose. No action on this subject was taken by the Board of Trustees at the time.

The Board of Trustees, however, adopted on March 4, 1896, a resolution cordially endorsing the scheme of the Professorial Pension Fund, but expressing the opinion that it was unwise to use the general funds of the university, or gifts not especially made for the purpose, to pension professors, and expressing the "willingness to receive contributions from former students, and from friends of the university, for the establishment of such fund (which should be increased by annual contributions from all professors desiring to avail themselves of the advantage thereof)", and also expressing a willingness to invest the money thus obtained and manage the same without cost to the benefactors or beneficiaries. "The object would appeal to graduates and old students who feel special obliga-

tions to the men who have opened to them the gateways of knowledge and enlarged and enriched their lives." The report proceeds: "Professors belong to a class who have consented to forego the advantages of lucrative employment that they may devote themselves to the cultivation of science and letters, and to the instruction of youth. The co-operative scheme endorsed by the Board does not endanger the individual's own thrift and self-help; it stimulates and supplements them."

No further action was taken under these resolutions until the year 1903, when an anonymous friend of the university gave \$150,000, to be placed at compound interest for eleven years until it should amount to \$250,000. This accumulated sum was then to be considered the gift of this benefactor, and the inviolable capital of the Professorial Fund. The annual contributions of the professors were to begin in 1903. For the period of eleven years no charge of any kind was to be made, either against the accumulated gift of the benefactor or the accumulated contributions of the professors. No professor retiring before 1914 was to be regarded as eligible for admission to the benefits of this retiring fund. It was provided that the total pension payment to each professor should be fifteen hundred dollars per annum. The first condition of the enjoyment of any portion of the income was to be an annual contribution on the part of the professor, which contribution through a series of years should provide for one-fourth of the pension received. There was appended to this scheme a table showing the amount of payment which should be made at different ages by the professors, beginning with an annual income of thirty-three dollars at the age of thirty, and reaching two hundred and eight dollars at the age of fifty-nine.

In case any professor should die before reaching the age of seventy years, it was provided that the amount of all his payments to the above fund, compounded semi-annually at the rate of one and one-half per cent., should be returned to his estate. In connection with the resolution establishing the pension system, action was taken by which five professors who had reached the age of seventy years were retired, whose terms of service were eight, twelve, thirty, thirty-four, and thirty-five years respectively, each with a full salary for one year, and with fifteen hundred dollars per year for four years.

The wise generosity of the giver of this retiring fund cannot be overestimated. Similar, but not identical, action had been taken previously by many of the leading universities of the country. Many universities have for years made generous provision for retiring professors without formulating a distinct policy upon this subject. The defect of the system as outlined is that the action of the Board of Trustees does not establish a proper service pension, based upon length of service, but combines with it a savings-bank system, which necessitates not merely intricate bookkeeping, but makes a special demand that the professor shall pay a considerable part of his own pension. The pension paid by the university does not begin until the accumulated contribution of the professor is exhausted, that is, until he has reached his seventy-third year. It is obvious that the number enjoying a pension will always be limited. At the time of the enactment of this statute, the number of professors in active service thirty-five years from the foundation of the university, who had reached the age of seventy, after serving twenty years, was but two.

The university authorities thus become the custodians of a certain part of the salary of a professor,

who is deprived of the use of his property and the possibility of its wise increase. The statute assumes that the professor is unable to care judiciously for his property, and substitutes an official control of a portion of his earnings, as a condition of his enjoyment of any pension. The probabilities of life indicate that only a limited number of professors who contribute to such a fund will reach the age of seventy years. In case of his death before reaching the age of seventy, his estate will suffer an actual loss by the difference between the amount of his savings accumulated at three per cent., and the amount received for the use of his money by the university, which receives now five per cent. on its investments. A serious defect in the system is that no provision is made for the voluntary retirement of a professor at an age when he can enjoy his pension. Most scholars look forward to retirement as affording an opportunity to pursue studies, and to finish investigations for which their active career has afforded limited leisure. He will thus have made a contribution to the exchequer of the university, without receiving any advantages from the system. To this extent the policy adopted defeats itself. Even should a professor reach the age of seventy years, his contribution to the Professorial Fund, accumulated at the market rates of money, will suffice to pay his pension for several years, and the university may, under these circumstances, escape entirely contributing anything to the fund in question.

The system in vogue elsewhere is more scientific. A pension becomes a proper service pension, based upon length of service. Any professor who has served twenty years may have the benefit of it without being taxed to contribute to furnish his own pension. In some cases, for every year that he has served over twenty, his pension is increased by one-sixtieth of his

salary, but his pension can in no case exceed two-thirds of the entire amount of his salary.

The age of retirement prescribed by the statutes of different institutions, differs. At Yale, any professor or assistant professor after twenty-five years of service may be retired at the age of sixty-five at his own request, with a retiring allowance of one-half his last annual salary. Compulsory retirement at sixty-eight is established. At Columbia, all questions of pensions and the length of service required for such pensions are fixed in individual instances by the trustees. At Harvard, any professor reaching the age of sixty years may retire if he so choose with a pension in proportion to his years of service. The system as established by this university is at present less perfect in details than that established in other universities.

The year 1898 is memorable for the establishment of the Cornell University Medical College in New York City, which opened on October 4th of that year. The establishment of this college was made possible by the munificence of Colonel Oliver H. Payne. Colonel Payne had passed through a period of ill health, in which his attention had been called to the need of thoroughly trained and scientific physicians. The benefit which he had received from such a physician led him to conceive the munificent purpose of founding an institution which should send out physicians equally prepared. The establishment of a similar institution in Ithaca had failed of approval in years past, owing to the absence of great hospitals, which make clinics embracing all diseases possible. Friends of the university, looking forward to the establishment of various faculties, had advocated the erection here of hospitals, either under the patronage of the state or by private benevolence, which should minister to the needs of the western and southern portions of the



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state, and thus make possible the establishment of a medical college.

In founding this new medical school in New York, provision was made to establish upon a permanent basis the medical preparatory department in Ithaca, so that it should include the first two years of the medical course. Students of arts and others who had pursued here those sciences which are at the foundation of medicine, would thus continue their further studies under the most favorable auspices in New York. The full realization of the possibilities of such a preparatory course was attained through the splendid gift of Mr. Dean Sage, by which a building for the medical school in Ithaca was erected on the campus.

The university experienced an additional enlargement in the same year from the establishment of the New York State College of Forestry.

President Schurman was absent from January 23, 1899, to September of that year, acting as chairman of the First Philippine Commission. During his absence, Professor Crane performed efficiently the duties of acting president.

In the report of the president for the academic year 1901-02, the need of a Hall of Humanities was presented with great vigor and ability. This building, really the initial need at the opening of the university, still awaited realization. The income of the university had for several years exceeded the expenses by so large a sum that it was found possible to erect this building out of accumulated and prospective funds. It was voted to appropriate fifty thousand dollars a year for five years to meet the cost of the structure, the erection and equipment of which were estimated at a quarter of a million dollars. President Schurman recommended that this hall should bear the honored name of Goldwin Smith, "the most illustrious ex-

ponent of literary culture who ever sat in the Cornell faculty, of which he was an original member, and is still *emeritus* professor of English history." It was proposed to provide ample accommodations for the classics, modern languages, philosophy, pedagogy, history, and political science. By removing these departments from White and Morrill halls, space would be left for an expansion of the departments of psychology, mathematics, and entomology.

This year was also marked by an effort to secure an artistic plan of the campus. In order that the university might be worthy of its site, not only beautiful buildings, but a harmonious arrangement of them, were regarded as necessary.

The year 1902-03 was marked by a serious epidemic, which can only be compared to similar diseases in the Middle Ages, which frequently interrupted the work of universities, scattered their students, and made resumption of studies impossible for a considerable period. Toward the close of January, 1903, previous isolated cases of typhoid fever became more frequent, multiplying with startling rapidity, and before the danger was realized, or it was possible to anticipate its magnitude, the city was practically prostrated with a scourge of this dread disease. In the few months which followed, probably twelve hundred cases of the disease, which had originated here, were under treatment either within the city or elsewhere. The cause of this swift and sudden fatality is not definitely known. It is probable that a creek which furnishes in part the water supply of the city had become impure, and the poison from probably a single case extended throughout the entire water supply of the city. The beneficent services of the Infirmary were now felt as never before. Although admirably equipped to accommodate twenty students daily, many prostrated with the dis-

ease were borne to its doors. They could not be turned away; there was at first no other place available for their reception, and more than sixty were received at a time in this single building. The exigencies of the case soon revealed the need of additional accommodations. Another residence was secured, and the new medical school building was opened for the reception of patients. Only those who passed through the painful experiences of the time can appreciate in any degree its gloom and uncertainty. In the morning it was not known who would be stricken before the evening. The student or the friend who greeted you bravely and cheerfully might be prostrated before the evening, and in the morning there were the sad tidings of those who had fallen ill since the sunset. The university authorities with lavish effort sought to make provision for an emergency which they could not have foreseen, and which has seldom been surpassed. Many students were recalled to their homes, and the number in actual attendance was perhaps only a fraction of the entire number of students. One hundred and thirty-one students were sick in Ithaca, of whom thirteen died, and one hundred and sixty out of Ithaca, of whom sixteen died. The entire number of students who were ill was about three hundred. The income of the university from the loss of tuition was decreased by approximately forty thousand dollars.

It is a striking fact in connection with the epidemic, that no student or member of the family of the professors residing on the campus was ill with the disease, the private residences and the chapter houses on the campus being supplied with water by the university from Fall Creek. The illness of students was most marked among those who resided in private houses on East Hill, where, in a single chapter house, the number of members of which probably did not exceed twenty-

four, there were eleven cases of the disease. For several years President Schurman had urged the necessity of the establishment of halls of residence for students on the university grounds, the importance of which was now fully realized. Only in this way was it believed to be possible to create a university atmosphere. In such halls the university could make provision for the welfare of students, such as is impracticable when they are scattered in boarding houses, often remote from the university.

The gloom of this period was brightened by the generous thought of Mr. Andrew Carnegie. Mr. Carnegie had himself suffered from typhoid fever. He asked to be allowed to pay all the bills incurred by students of Cornell University on account of sickness in the recent epidemic, where such bills would be felt as a burden by the students or their parents. Of this act, President Schurman remarked: "It may be said with truth that of all the gifts, amounting to scores of millions of dollars, made by this philanthropist, few if any can have touched so deeply so many human hearts and brought help and encouragement to so many struggling and self-supporting youths, whom the heavy strokes of ill fortune had made victims, not only of suffering, but in some cases of despondency, and even of despair; and 'Sick and he ministered unto us' is the grateful tribute of Cornell students." The students, at a general meeting, held on Friday evening, May 8, adopted the following resolutions: "We wish to express to Mr. Carnegie our deep sense of gratitude and appreciation for the thoughtful and noble gift to those of our number who were stricken with the fever,—a gift which has enabled many of them to continue their work in the university, and has lifted a heavy burden from scores of others. This gift, coming straight from the heart of the donor, has touched us all very deeply, and will

keep him in lasting and affectionate remembrance among all Cornellians."

Mr. Carnegie did not rest with his generous provision for students who had suffered by the epidemic. He offered to erect for the university a filtration plant which should guarantee permanently an abundant and healthful water supply for the residents on the university grounds. Mr. Andrew Carnegie's entire gift for the Student Relief Fund and the filtration plant reached the sum of \$130,909.34.

It was realized that the future of the university depended upon the swift adoption of measures which would restore public confidence, and make a residence in the city safe for students. With this purpose dominant, a loan of nearly a quarter of a million dollars was offered to the Ithaca Water Company to erect a filtration system which would provide pure water for the city, and thus indirectly protect the students of the university.

The students were impressed with the necessity of the establishment of residential and dining halls, and passed resolutions in a public meeting affirming that a system of dormitories, supervised and controlled by the university, was imperatively needed. The trustees, at their meeting on April 18, voted that the university would pledge itself to duplicate out of its own funds all residential halls received as unrestricted gifts up to the aggregate limit of \$500,000, "it being understood that such halls shall be of a plain substantial character, fireproof, and as beautiful as is compatible with simplicity and economy."

The following year will always be one marked in the history of the university, as it saw the beginning of a building era which has been characteristic of the administration of President Schurman. It is notable for the state appropriation of a quarter of a million dol-

lars for the Agricultural College; the gift of the Loomis Laboratory and its endowment, for the purposes of the Cornell University Medical College in New York, the value of which exceeds \$240,000; the completion of the gift of General Alfred C. Barnes, for the Fuertes Observatory; the noble legacy of Mr. F. W. Guiteau, for the assistance of deserving students, the amount of which will probably reach \$150,000; Mr. William H. Sage's gift of \$30,000 for the enlargement and decoration of Sage Chapel; the gift of \$10,000 from Mrs. Dean Sage, to increase the Dean Sage Sermon Fund, and also the gift of a pulpit of Caen stone for the chapel; besides, a gift of \$100,000 for the maintenance of the Cornell University Medical College in New York, from Colonel Oliver H. Payne.

CHAPTER XV

MILITARY INSTRUCTION

DURING the war the need of thoroughly trained officers to assume command in the army was strongly felt. The number of cadets graduating each year from West Point was too small to supply vacancies in the regular army. The existence of military schools throughout the South, in which a considerable portion of the young men were educated in military science and tactics, had given the southern armies an especial advantage at the opening of the war. On April 4, 1867, Major J. W. Whittlesey, of the regular army, an experienced and skilful officer, was ordered by the secretary of war to proceed to West Point and other colleges, and report a suitable method of instruction in military science for such colleges in the United States as might desire it, direct reference being made to the provision in the National Land Grant Act requiring military instruction in the new colleges. On November 25, 1867, Major Whittlesey presented an elaborate report to the secretary of war recommending a form of organization and instruction in military science in these various colleges. By a law passed July 28, 1866, it had been provided that, under certain circumstances, the President should be authorized to detail an officer of the regular army to instruct in military science and tactics in the colleges established under the Land Grant Act. The statute read as follows:

“The President may, upon the application of any established college or university within the United

States, having capacity to educate, at the same time, not less than one hundred and fifty male students, detail an officer of the army to act as president, superintendent, or professor thereof; but the number of officers so detailed shall not exceed (twenty) (thirty) at any time, and they shall be apportioned throughout the United States, as nearly as may be practicable, according to population. Officers so detailed shall be governed by general rules prescribed, from time to time, by the President. The secretary of war is authorized to issue at his discretion, and under proper regulations to be prescribed by him, out of any small arms or pieces of field artillery belonging to the Government and which can be spared for that purpose, such number of the same as may appear to be required for military instruction and practice, by the students of any college or university under the provisions of this section; and the secretary shall require a bond in each case, in double the value of the property, for the care and safe keeping thereof, and for the return of the same when required." This plan for national military education was not presented to Congress, but came before the House Military Committee. General Garfield was, at the time, chairman of this committee and deeply interested in the proposed bill for military education, which, it was expected, would receive the authority of Congress early in the year 1868. The report was referred to General Grant for his favorable recommendation to Congress. It was proposed to establish a bureau of the War Department in charge of a director-general of military education, whose duty it should be to inspect and supervise military academies, secure uniformity of instruction, and enforce faithful compliance with the laws and regulations on those subjects. Whenever such an institution should have capacity sufficient to educate one hundred male stu-

dents in a complete course of liberal studies, with grounds for military exercises, there should be detailed a competent officer of the army to act as military professor, with an assistant. The President of the United States was to have the right to prescribe the course of military exercises to be taught, and establish general regulations for the government of the officers so detailed, but without infringement of the rights of the institution to self-government. In case any college established such a course of instruction in military science, it was proposed that the necessary text-books, ordnance and ordnance stores, camp and garrison equipage, with a detail of one ordnance sergeant and two musicians, should be provided at the expense of the United States. In order to create enthusiasm in these studies, it was provided that the faculty of arts of the college might recommend to the President of the United States each year one-tenth of the graduates distinguished for general proficiency in the college course, special attainments in military science and skill in military exercises, of good moral character and sound health, whose names should be published in the army register, of whom one from each college should receive a commission in the army, as in the case of graduates from West Point. It was thus designed to bring the colleges of our country into immediate relation to the army, and make them indirect aids in contributing to the training of officers. It was still further proposed that each college thus constituted should receive two thousand dollars from the United States treasury, to be expended under the charge of the director of military education, in the purchase of the necessary books of reference, maps, models, and text-books, and also ten thousand dollars to be expended in constructing a suitable building for the purpose of an armory. The report presented an elaborate scheme of instruc-

tion in military engineering, the theory of ordnance and gunnery, the art of war, military history, the purpose of courts-martial and the school of the soldier. The text-books and mode of instruction were to be the same as those employed at West Point. The students were to be divided into companies of from fifty to sixty strong. The battalion staff and the company officers were to be taken from the senior class, the staff sergeants and the company sergeants from the junior class, the corporals from the sophomore class, with such modifications as may suit the case of students in shorter or longer courses. It was proposed that a uniform should be adopted to be worn by all students. It was thought that by this, economy would be promoted, since it would save the expense of variety and change of fashion. It would secure personal neatness, and place all students upon a footing of republican equality; sons of the rich and the poor, meeting upon a common level, would have nothing in their apparel to stimulate the pride of the one or wound the self-respect of the other. It was believed that by wearing this badge, an honorable ambition to excel, refinement of manners, and manly tone of character would be created, favorable to the reputation of the class to which the student belonged and to the honor of the institution which was in his keeping. Daily martial exercises were to be rigidly enforced, and only to be remitted by reason of conscientious scruples or physical debility. The discipline of the institution was to be placed under the care of the professor of the military department under the direction of the university authorities. The usual regulations of the camp as to exercise, recreation, sleep, the reveille, the roll-call, the call to and from duty, the tattoo, all in their regular order, were to aid and direct the observance of college duties and discipline. Later, artillery and cavalry drill was to be



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added to that of infantry study and drill, and it was proposed to fix a high standard at the outset.

It is evident that so general an introduction of military studies could only have been recommended when the remembrance of the recent war, its perils and glorious achievements, was still vivid. The domination of a military system in literary institutions did not at that time seem impracticable. Many of the students of the university will recognize in this report some of the regulations of their early days.

The trustees at their seventh meeting resolved:

"That while we would not require all students in the special courses to undergo military instruction, since this would be to do violence to the fundamental principles of the university, yet we believe that all general courses of study in the university should include rudimentary knowledge of military science and a good deal of proficiency in military exercises."

The trustees also approved the draft of the bill before Congress for the promotion of military instruction in the leading colleges, universities, and institutions of learning established under the Land Grant Act, and expressed a willingness to co-operate earnestly in any plan to promote the most thorough special military instruction whenever such means should be placed at their disposal so as to enable them to do it.

At a subsequent meeting, held in Ithaca, October 6, 1868, a formal regulation relating to the military department of the university was passed:

"That the students of the university who reside in the university buildings, for discipline, police, or administration, shall be placed on a military basis, under the immediate direction of the professor of military science, who shall be recognized as the military commandant of the students. That the military comman-

dant shall enforce the necessary regulations which may from time to time be established by university authority, to insure good order in the quarters and mess-halls, with precision, and regular attendance upon stated duties; and that all regulations so established shall be of binding obligation upon students, under such sanctions as the president, by and with the advice of the faculty, may determine. That an appropriate and economical uniform shall be fixed upon, which, after the current academic year, shall be the habitual costume for all students pursuing regular courses of study; and that thereafter attention to the instruction in military tactics provided for in the Congressional Land Grant endowment of 1862, shall be obligatory upon all such students, the president having authority, at his discretion, to grant special exemptions therefrom, for good cause shown."

These resolutions, with the exception of that portion relating to the uniform, were adopted. An extract from one of the earliest military orders is worth preserving:

"Section 2. At reveille (the signal for rising), which will be given by the ringing of the university bells at 5 o'clock A. M., during the months of April, May, June, July, August, and September; at half-past 5 o'clock A. M., during the months of March and October; and at 6 o'clock A. M. during the remainder of the year, all cadets will rise, dress, arrange their furniture, beds, etc., and sweep their rooms. Sweeping will be allowed at no other hour during the day. Captains of companies will inspect each room of their respective companies half an hour after reveille, to insure compliance with these regulations, and to see that all cadets are present.

"Section 3. At the signals for meals, which will be sounded by the university bells as follows: breakfast

call at 7 o'clock A. M.; dinner call at 1.30 o'clock P. M.; and supper call at 6 o'clock P. M., companies will be formed on the company parades by the first sergeants, under the supervision of the captains, and will be marched by their captains in a military and orderly manner, to their proper places in the mess-halls. At the breakfast call, the rolls of the companies will be called by the first sergeants, and the result will be reported on the spot to the captains. All absences from rooms at inspections and from roll-calls will be noted on the morning reports of the companies, made by the captains to the commandant.

" Section 7. Tattoo will be sounded by the bells at 9 o'clock P. M., immediately after which captains will inspect the rooms of their respective companies to verify the presence of the occupants. Absences will be noted on the next morning report.

" Section 8. The hours between reveille and breakfast, between 8 o'clock A. M. and dinner, and between 7 o'clock P. M. and tattoo, will be regarded as study hours; during which the utmost quiet in the rooms and the halls of the building will be observed, and visiting between rooms as much as possible avoided, in order that those who desire to study may not be interrupted.

" Section 10. On Sunday mornings, at church call, sounded by the bells, the cadets at each building will be formed into squads, without regard to company organization, and will be marched by the senior officer present in each, to their respective places of worship. On arriving at the places, the squads will break ranks and enter without military command, and after service will return without military formation.

" Section 11. Reports of absences from stated roll-calls and inspections, and of other irregularities which may be made by captains under this order, will be notified by the adjutant to cadets, who will call at the com-

mandant's office at the next morning hour and offer explanation.

"The commandant will in person inspect the rooms in both buildings, between the hours of breakfast and dinner, and at other times. Rooms will never be locked. Efficient measures will be taken for the security of property."

"This military system cannot fail to inculcate habits of promptness, punctuality, order, and obedience to prescribed rules and constituted authorities. All of these are no more the fundamental principles of military discipline, and peculiar to that, than they are essential in a high degree to the man and the citizen, whether in a public or a private station.

"It is granted that this great university was not founded for the purpose of educating soldiers, but if it can imbue citizens with all that is good in soldiers, and fit them to be soldiers in time of need, who shall say that its results will not be commensurate with its high purposes, and its influences as beneficent, as the efforts to extend them are self-sacrificing and earnest?" Later, this also was prescribed.

It is evident that the trustees construed the obligation to require military service in the strictest manner. Under the terms of the law, it was necessary that provision should be made for instruction in military science and tactics, without requiring that it should be binding upon all students. The irksomeness of these petty military requirements was soon felt. Students to whom military instruction was but an incident in a broad course of literary and scientific studies, did not submit willingly to these restrictions upon their personal liberty. The extent to which the regulations were enforced is shown by the above general order from the military commandant.

Students rose and retired at the beat of the drum;

they marched to meals in military file; their officers kept watch and ward over their conduct at table; breaches of decorum or failure to comply with all the requirements regarding dress were reported and punished. Punishment consisted of arrest, confinement to one's room, and other restrictions. The officers of the corps were made responsible for the enforcement of these laws, and for a general oversight of the order in the different dormitories. One captain, who so far forgot his rank as to join some of his comrades in hazing mildly an obnoxious student, was expelled from the university, and marched away amid vehement protests from the student world, and escorted by a procession of his fellow students. This minute oversight of student life was, after the departure of the first military commandant, greatly relaxed. The uniform was still continued, and stirring debates were held in the faculty upon the style and fashion of various parts of the students' dress, which were brought before the body for approval. The legislature authorized, February 12, 1869, the adjutant-general to lend ordnance and ordnance stores, and such camp and garrison equipage as might from time to time be necessary, for the instruction of students in military tactics. The cadets received in accordance with this resolution Springfield rifles, and a battery of artillery was promised for the following year (February 20).

As the remembrance of the war grew more indistinct, it was difficult to awaken or continue enthusiasm in military drill. Had military exercises been placed upon the basis of modern gymnastics, with the purpose of securing the health of the student, and the benefits of military discipline in producing a manly bearing, less objection and fewer petitions for exemption from what seemed a needless exaction on the part of the authorities of the university would have arisen. The require-

ment that all classes should drill was lessened, military exercises on the part of the upper classes being reduced in number, or made voluntary in the case of officers, for which credit was given as for other university work. Drill was finally required only of the members of the freshman and sophomore classes during the fall and spring terms. The habitual wearing of the university uniform was dispensed with, and military costume was only required during the actual exercises of the student.

One feature of the original report of Major Whitteley is still carried out. The names of students who have shown special aptitude for military service are reported to the adjutant-general of the army, and to the adjutant-general of the state of New York, and the names of the three most distinguished students in military science and tactics are, when graduated, inserted in the United States Army Register and published in general orders from the headquarters of the army. Such students are, under certain circumstances, allowed to present themselves for examination as commissioned officers in the United States Army, an opportunity of which several have availed themselves.

In 1876, drill and military science, which had hitherto been required of all students in the university during the first and third terms of the first three years, and during the second term of the fourth year, were practically made elective, and students were permitted to present a substitute for these subjects in any other university work. It was also provided that credit for drill and military science should be reported to the registrar, and regarded as a part of the required work of the student for graduation, like any other university work. In 1897 military drill was limited to the freshman and sophomore classes. This requirement con-

tinued until the year 1902, when drill was required of the freshman class alone. While drill was not in general regarded as irksome, it became a serious burden to students in the laboratories and shops, and especially in the technical courses where the prescribed curriculum lays absolute control upon the student's time.

In the reorganization of the army, which took place under the direction of the secretary of war, the Hon. Elihu Root—a reorganization more vital and far-reaching to the military system of the country than any before undertaken,—the system of instruction in the educational institutions to which a detail of the officers of the army was permitted, was made. By an order issued on April 6, 1904, the various colleges and universities to which a professor of military science might be detailed were divided into three classes. Colleges established under the Land Grant Act of 1872 were included in the second class. It was provided that “no officer who has not had five years' service as such, nor any officer not of the line of the army, shall be eligible for detail as professor of military science and tactics, nor shall any officer above the grade of lieutenant be so detailed so long as there are eligible lieutenants available, nor shall any officer on the retired list of the army be detailed if any eligible officer on the active list be available.”

In order that a detail might be made it was provided that a lieutenant should have graduated from one of the service schools, and been recommended by his regimental commander. His record as a student in the officers' post school, and his military deportment and performance of duty, had to be creditable in a marked degree. Officers detailed as professors of military science and tactics were required to report in writing to the adjutant-general of the army as to the exact compliance by the school authorities with the require-

ments of the regulations prescribed by the secretary of war.

The instruction required is as follows:

(a) Practical:

Infantry drill regulations, through the school of the battalion in close and extended order; advance and rear guards, and outposts; marches; the ceremonies of battalion review, inspection, parades, guard mounting, and escort of the colors; infantry target practice; instruction in first aid to the injured.

Target practice on the range should be preceded by instruction in gallery practice, and at those institutions where range practice cannot be had every effort must be made to substitute gallery practice for it.

(b) Theoretical:

The infantry drill regulations covered by the practical instruction; the manual of guard duty; small-arms firing regulations; certain articles of war; one lecture on camps and camp hygiene; and the following records: Enlistment and discharge papers, including descriptive lists, morning reports, field and monthly returns, muster rolls, rosters, ration returns, requisitions and property returns, lectures on the organization of the United States Army, including volunteers and militia, on patrols and outposts, on marches, on camps and camp hygiene, on lines and bases of operations, on the attack and defense of advance and rear guards and outposts, and convoys.

It was also provided that field pieces of artillery, with their carriages and equipment, also Springfield cadet rifles and accouterments consisting of officers' swords, cavalry sabers and belts, and requisite ammunition, might be issued.

It is apparent from these requirements that in order for the university to enjoy the benefit of this detail, and in effect to comply with the law of Congress, ad-



the same time, the fact that the same person can be both a subject and an object of a relation, and that the same relation can be both a subject and an object of a relation, is not a contradiction. It is a fact of life, and it is a fact of logic.

It is a fact of life that a person can be both a subject and an object of a relation. It is a fact of logic that a relation can be both a subject and an object of a relation. This is not a contradiction. It is a fact of life, and it is a fact of logic. It is a fact of life that a person can be both a subject and an object of a relation. It is a fact of logic that a relation can be both a subject and an object of a relation. This is not a contradiction. It is a fact of life, and it is a fact of logic.

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Sam Campbell

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ditional provision will have to be made for military instruction in the university, and with that object in view, the courses of instruction will have to be arranged to afford opportunity for the requirements of the national government. For the first year, a relaxation of this order has been permitted, as the courses of study had already been arranged, and a subsequent readjustment was impossible.

The influence of the gallant officers who have been detailed by the government as professors of military science in this university has been in the highest degree beneficial. Their distinguished character and ability, and especially their bearing, their fidelity to duty, the lessons of dignity, order, and obedience which they have instinctively taught and enforced, have been an important element in the government of the university and in the morale of students. Many of these officers have, in addition to military drill and instruction in tactics, given interesting courses of lectures upon the great military campaigns of history and the strategy of leading commanders. It would seem as though it were possible to establish a course of professional training in military science and the art of war, which should extend for advanced students through the senior year. Such a course would thus become a professional course, like that of law or medicine or engineering. It would open a career in the army to those students who elected it.

An interesting course of lectures upon military history would form a valuable adjunct to many historical courses, and thus introduce an attractive feature, both in the historical courses and in the department of military instruction.

The university contributed to the United States army and navy in the Spanish-American War three former commandants, two professors, 125 graduates,

and 40 undergraduates, making a total of 170, a list of whom is given in the appendix. There were 106 officers; of these 87 were commissioned officers, besides numerous warrant officers, as electricians, first-class machinists and others, detailed for staff and special service.

The relation which the department of military instruction sustains to the war department is shown by the fact that ten graduates of the university, who had distinguished themselves in the study of military science and tactics, and by practical work in the school of the soldier, have passed successfully the examination for a commission in the regular army, and have received appointments to the same. Among these are:

Frank A. Barton, M. E., 1891; Second Lieutenant of the Twenty-fourth Infantry (1891), transferred to the Tenth Cavalry (1892), First Lieutenant in the Third Cavalry (1898), Captain in the Third Cavalry (1901), and Military Commandant in command at Cornell University (1904).

Joseph W. Beacham, Jr., LL. B., 1897; Private and Sergeant in the Astor Battery (1898), Second Lieutenant in the First Infantry (1899), First Lieutenant in the Twentieth Infantry (1901).

Edward Davis, LL. B., 1896; Second Lieutenant in the First Regiment of Illinois Volunteer Infantry (1898), Captain in the Thirty-third United States Volunteer Infantry (1899), First Lieutenant in the Eleventh Cavalry (1901).

William R. Doores, C. E., 1893; Second Lieutenant in the Fifth Artillery (1898), First Lieutenant in the Artillery Corps (1901), Captain in the Artillery Corps (1903).

William R. Eastman, Ph. B., 1895; Assistant Surgeon with the rank of First Lieutenant in the United States Army (1901).

Jesse R. Harris, A. B., 1902; Assistant Surgeon with the rank of First Lieutenant in the United States Army (1902).

Louis H. Kilbourne, LL. B., 1895, LL. M., 1897; Sergeant, Company K, in the Fifth Pennsylvania Volunteer Infantry (1898), Second Lieutenant in the Eighth Cavalry (1901).

Stephen H. Mould, B. L., 1890; First Lieutenant in the Two Hundred and Third Regiment of New York Volunteer Infantry (1898), First Lieutenant in the Forty-fourth Regiment of the United States Volunteer Infantry (1899), First Lieutenant in the United States Artillery Corps (1901).

Frederick W. Phisterer, M. E., 1895, M. M. E., 1896, D. Sc., 1897; Second Lieutenant in the First Artillery (1898), First Lieutenant in the Artillery Corps (1901), Captain in the Artillery Corps (1902).

Ervin Louis Phillips, A. B., 1891; Second Lieutenant in the Sixth Cavalry (1891), First Lieutenant in the Third Cavalry (1898), Captain in the Thirteenth Cavalry (1901).

lege tables. These will include live stock for producing milk, butter, and cheese, and to be killed for meat; grain for bread, and vegetables and fruits of all kinds suited to the climate and soil.

“ Mechanical employment will be given to all in the machine shop of the university. This will be equipped with an engine of twenty-five horse-power, lathes, planing-machines for iron and wood, and all the most improved implements and tools for working in iron and wood. Here they will manufacture tools, machinery, models, patterns, etc. The erection of the additional buildings required for the university will furnish employment for years to students in need of it. There will also be employment in laying out, grading, road-making, and improving and beautifying the farm and grounds of the university. The work done by students will be paid for at the current rates paid elsewhere for like services. The work will be done under the supervision of the professors and competent superintendents and foremen. It will be the constant aim of the trustees and faculty of the university to render it as attractive and instructive as possible, and especially to make it conducive to the health, growth, and physical vigor of the students, besides affording them the means of self-support and independence, while receiving all the advantages of the university.

“ With such combined facilities for instruction and maintenance, all the expenses of a first-class faculty and of tuition being paid by the endowment, I trust that no person who earnestly desires to be thoroughly educated will find difficulty in becoming so by his own exertions at the Cornell University.

“ We already have students who entered three months in advance of the opening of the university, to avail themselves of the opportunity to earn two dollars per day through haying and harvest, and thus make

a sure thing of it. Such boys will get an education, and will make their mark in the world in the use of it.

"In conclusion, I will assure the boys that if they will perform one-fourth as much labor as I did at their ages, or as I do now at sixty years of age, they will find no difficulty in paying their expenses while prosecuting their studies at Ithaca."

When Mr. Cornell visited Yale, and saw the students perform in the gymnasium, he expressed himself very decidedly on this matter. Here, he said, were healthy young men driven to resort to the artificial exercise of the muscles for their health, and as a relief from study. He would provide means to turn that muscular exercise to better advantage. Instead of "climbing ropes like monkeys in a cage," he would furnish the young men with means and incentives to exercise their muscles in useful work. They would rest their brains from study of books by turning their minds toward something else.

A circular of those early days states:

"Possible Earnings of Students in the Voluntary Labor Corps, etc."

"At the beginning of instruction on the last Wednesday in September there will be enrolled 'Voluntary Labor Corps' for different kinds of work, to be done under the direction of the professors of agriculture, mechanic arts, civil engineering, etc.

"A large force of students can thus be employed upon the farm, machine shop, and in work upon the grounds, and the university will pay students the same prices which it would have to pay to others for the same work.

"The time given each day by each member of the Voluntary Labor Corps will probably average from two to six hours.



MORRILL HALL

MSU 2014

"In addition to the work above named there will be needed at an early day in the library, laboratories, etc., assistants and clerks who would be naturally chosen from among students in good standing."

Upon the first day notice was read in front of Morrill Hall that all students who desired to work might report the following morning at seven o'clock for labor in constructing a road from Morrill Hall (then called the University, as the only building erected) to Cascadilla Place. On the following morning an army of students with wheelbarrows and shovels began work upon the crest of the hill between the Psi Upsilon and Kappa Alpha chapter houses, and before night something that looked like a rough opening through the thickets extended down the slope to the creek. Mr. Cornell visited the scene of activity and laughed heartily at the initial success of his effort to combine a liberal and practical education. A defective photograph of this scene is still preserved.

Many of our most distinguished alumni contributed to their support by availing themselves of the facilities which the university offered in those early days. The president of a great university upon the Pacific Coast, a former member of Congress from New York and now a prominent lawyer in that city, a distinguished librarian, the president of a great New York State bank, all contributed in some way or other to their support. One was a mason, another a carpenter, a third set type in the university printing-office, and a fourth waited at table. Some drove carts upon the university grounds, others had their first lessons in laboring by contributions to the local papers. There was an enthusiasm for work. To belong to the labor corps was a badge of honor.

A prominent architect in New York, writing the

present year, said: "I organized the working department of the students in Cornell, especially those of the carpentry department, in company with C. C. King, D. W. King, S. E. Todd, and Mr. Hyde. We started in an old carriage house that stood out on the campus between the old chemical building and President White's residence. Mr. Cornell visited our shop and offered to put up a building for our special use. I consulted with him as to the form and size of the same, which resulted in the building of a large frame structure on the bank of Fall Creek, just back of Sibley College. It was there that some twenty-odd students earned the money to pay their way through college under my care. My mind is crowded with pleasant recollections of those days, filled with mental and physical labor."

No purpose lay nearer to Mr. Cornell's heart in founding the university than this, viz., that poor boys and girls might, by devoting a somewhat longer period to their course of study, support themselves, and graduate, possessed of an education and of some trade or profession which would secure their future support. The remembrance of his own early struggles with limited opportunities gave a tender feeling to him regarding all young men similarly situated. He gave much thought not only to systematizing the opportunities for work upon the university buildings and the university grounds, but also to introducing in the vicinity of the university new and profitable industries, which should be operated in connection with it. He loved his native city; he desired its prosperity; he was willing to use his large resources to build up industries which should add to its wealth; but most of all, during the last years of his life, he loved the university which bore his name and which was destined, as he fondly hoped, to be the most practical means of blessing his fellow-men. In those early days, many students of

very limited means flocked to the university with the anticipation that their support would be secured by scholarships, and that they would be enabled, by extra labor, to obtain whatever else might be necessary to acquire an education. The labor of janitors in the care of the university buildings, of assistants in the museums and libraries, of workmen on the university grounds, was to be given to students. Mr. Cornell hoped much from the establishment of the University Press, by which students might learn the printer's trade, and which would afford means for the issue of university publications. It is probable that Mr. White, while sympathizing with these views, did not have equal hopes of the success of this experiment. The most useful labor, he believed, would be of a scientific character, by which the student acquired a knowledge of mechanical processes. There are two problems intimately associated with a plan like that proposed. The first and most important one is whether a student is able, in connection with his university work, to carry on an additional daily task sufficient for his support. The feature of teaching during the winter in country schools, which existed in New England colleges, facility for which was afforded by a long vacation, was here to be made continuous. Work was to be carried on incessantly and in connection with study, and the question naturally arose, how far the physical health would be sufficient to meet this double demand; how far study could be profitable when the strength upon which it depended for success was equally devoted to mechanical pursuits. The second and more practical question was, how far it was possible to prosecute any industry profitably while relying upon student labor, which must necessarily be afforded in limited amount, and at intervals accommodated to the intellectual work of the student. If the opportunity for manual labor was fur-

nished at a pecuniary loss, and at the possible sacrifice of the physical health of the student, why not make it a gift outright? These two factors have practically decided the possibility of success in this experiment. Competition is so keen, even with skilled labor, working with the entire time and under the most favorable opportunities on the part of the operative, that, when brought into comparison with work relying upon labor at irregular intervals, the latter must necessarily suffer defeat, from the standpoint of mere business success. Looking back upon those early years, we see that many students who belonged to the labor corps, as it was called, were successful to an eminent degree in maintaining themselves during their university life, and in attaining a distinguished rank among their fellow-students. It would be possible to enumerate many now occupying leading positions in the educational and scientific world, whose education was obtained by heroic sacrifice, by willing limitation of pleasure, and by lofty devotion to an ideal of learning. But, as a rule, we must confess that the limitations inherent in the system itself have been too great to be set aside. Many students who came here with exaggerated hopes of maintaining themselves were disappointed. The amount of work which the university could furnish, even at a loss, was not sufficient to support all students who came relying upon it. The plan, too, gave the impression that self-support, so far from being an incident in the university life, constituted an essential feature; and for many years, in spite of specific statements sent out calculated to avoid holding out undue hopes, the impression prevailed in educational circles throughout the country that the university was, in large part, a manual-labor or trade school.

CHAPTER XVII

CO-EDUCATION

IT was a part of Mr. Cornell's original plan that the university should be open for the instruction of both young men and women. It was in accordance with his natural training and mode of thought; he was of Quaker ancestry, and was familiar with the traditions of that body, in which an equal prominence is given to women in public meetings. To the eloquence and pure moral sense of women who have advocated moral reform, education, and the abolition of slavery, the advance of our country has been largely due. It was therefore natural that, in any conception of the university, he should include co-education of the sexes. In a letter written from Albany to his only granddaughter, February 17, 1867, nearly two years before the opening of the university, he said: "I want to have girls educated in the university, as well as boys, so that they may have the same opportunity to become wise and useful to society that the boys have." He even asked that his letter might be preserved, so as to show to the university authorities in the future what his wishes were. In his address at the opening of the university he had distinctly stated: "I believe we have made the beginning of an institution which will prove highly beneficial to the poor young men and poor young women of our country."

Mr. Cornell paid a beautiful tribute to his wife and to her share in the foundation of the university, in a letter from Washington, January 16, 1869:

" . . . Those trials and privations are past, and

yet they are pleasant and profitable to look upon. Honors, cheaply won, are lightly esteemed. Our honors are the price of long years of toil, patient, persistent labor, scanty means, long absence from home and each other's society, anxious cares and perplexities such as swamp many stout hearts and send them wrecked down the stream of time to the ocean of oblivion. Happily, we have reached a nobler goal. Your trials have triumphed, and you now hold a position envied by those whom you once regarded as the most favored among women.

"To pass by minor honors, the one of being the wife of the founder of the Cornell University, and the wife to whose efforts and privations and struggles that institution owes its existence, as much as to the founder himself (for I freely acknowledge that without your assistance at home I could never have accomplished the successes which have culminated in the university), is an honor higher and nobler than falls to the lot of many women. I hope that a still *higher honor* awaits my dear wife.

"The *honor* of *founding* a *system* of *industry* by which girls holding the same position in society that you did at the period of our marriage, may, by the application of three or four hours of their time each day, provide the means for procuring the highest and most useful education. The need of such an *industry* is becoming daily more and more apparent, and it is sure ere long to be worked out, and nowhere can it be more easily done than in connection with the Cornell University. And no woman or man will in future receive nobler and more lasting, or better deserved honors, than will she or he who organizes such an industry. That my wife may be the great benefactor of her sex in this reform is an ambition that I dearly cherish.

"The glory of woman's suffrage will pale before

the brighter rays that will flash from the sun of woman's self-reliant and independent action in providing for her greatest needs. Your practical and well-organized mind directed in this channel cannot fail to arrive at conclusions that will lead to success. I shall be happy to contribute my mite in such a noble work."

It is easy to see whence Mr. Cornell derived his faith in woman, and how naturally, and as a debt of gratitude to his wife, he sought to provide facilities for the higher education of woman. All Mr. Cornell's letters to his wife bear witness to the perfect confidence which existed between them, and contain a revelation of his lofty ideal not often shown in familiar correspondence. Thus, in a letter from Albany, written August 4, 1866, he says:

" . . . I now feel, for the first time, that the destiny of the Cornell University is fixed, and that its ultimate endowment would be ample for the vast field of labor it embraces, and if properly organized for the development of truth, industry, and frugality, it will become a power in the land which will control and mould the future of this great state, and carry it onward and upward in its industrial development, and support of civil and religious liberty, and its guaranty of equal rights and equal laws to all men."

President White in his inaugural address met the question with great frankness, when he said: "As to the question of sex, I have little doubt that within a very few years the experiment desired will be tried in some of our largest universities. There are many reasons for expecting its success. It has succeeded not only in the common schools, but, what is much more to the point, in the normal schools and academies of the state. It has succeeded so far in some of the lecture rooms in some of our leading colleges that it

is very difficult to see why it should not succeed in all their lecture rooms; and if the experiment succeeds as regards lectures, it is very difficult to see why it should not succeed as regards recitations. Speaking entirely for myself, I would say that I am perfectly willing to undertake the experiment as soon as it shall be possible to do so, but no fair-minded man or woman can ask us to undertake it now, as it is with the utmost difficulty that we are ready to receive young men. It has cost years of hard thought and labor to get ready to carry out the first intentions of the national and state authorities which had reference to young men. I trust the time will soon come when we can do more."

At the opening of the university, co-education had already received a successful trial of more than thirty years in Oberlin by the noble and devoted citizens of New England who settled the Western Reserve in Ohio. Horace Mann and his equally enthusiastic supporters had set on foot a similar experiment in 1853. Mr. Mann had declined the nomination to be governor of Massachusetts in order to accept the presidency of Antioch College, and to pass through the pathetic struggles which accompanied the foundation of that institution. Other institutions in the East had adopted the Oberlin plan, but the movement had occurred on so small a scale that its presence as a decisive factor in educational life had not been widely felt. Michigan, which possessed the largest state university, had felt the powerful demand among the people, and even in the legislature, for the admission of women. In the years 1867 and 1868 the legislature passed recommendations urging the Regents to admit women to all the facilities of instruction in the state university. President White, while accepting theoretically the justice of the demand for the higher education of women, felt the limitations, both financial and otherwise, which

would make immediate favorable action in that direction impossible. In the interval a vigorous aggressive movement on the part of the advocates of female suffrage, who saw, in the higher education of woman, a step toward her wider participation in public life, began, and pressure, personal as well as public, was exerted to use the university as an instrument to promote these views. Miss Susan B. Anthony visited the university and consulted with Mr. Cornell. She afterward wrote: "I visited Cascadilla, smelt tobacco smoke, and saw that ladies were needed there." She advised the engagement of a woman housekeeper to teach culinary branches.

Early in the year 1869, an organized campaign was begun to secure the admission of women to the university. On March 27 Miss Susan B. Anthony delivered an address in Library Hall as the opening note of this movement. In order to storm the citadel in the initial attack, Mr. Cornell was invited to conduct Miss Anthony to the platform and to introduce her to the audience. In presenting her, he stated that he had supposed that she would have had independence enough to take the stand alone and introduce herself. He was willing to accompany her, but opposed to the surrender of all his masculine rights. Miss Anthony stated that the day in which the constitution of the university should be amended so that women might be admitted to all its benefits and privileges, on the same terms as men, would be celebrated hereafter as sacredly as the Fourth of July or the day of the birth of Jesus Christ. At the conclusion of Miss Anthony's address, Mr. Cornell, in obedience to a call from the audience and at the command of Miss Anthony, informed her, whom he characterized as the "ungentle advocate of the rights of the gentle sex," that any lady passing the competitive examinations for a state

scholarship could enter the university, and that he should answer all such inquiries in the affirmative. Many of the best friends of the university hesitated to commit the university at that time to this movement.

Mr. Goldwin Smith, in an address before the Social Science Convention in Albany, delivered February 17, 1869, expressed the view that everything affecting the relative position of the sexes was of the gravest importance; he therefore hoped that experiments would be made cautiously, and not on too extensive a scale. He was decidedly opposed to subjecting women to competitive examinations.

On June 5, 1871, Mr. Henry W. Sage wrote to President White: "I will be present at Ithaca from the 20th to the 22d instant, if alive and well. While at Ithaca, if we have the time, I want to talk with you about a place for the education of women, under the wing of Cornell."

Miss Catherine E. Beecher, a prominent advocate of the higher education of woman and the sister of Henry Ward Beecher, wrote to President White, August 11, 1871:

"We believe that large funds are at our command, but we are at a stand on these questions. Shall the higher department of woman's education be attempted in men's colleges, or shall endowed institutions be provided for women alone, or shall there be endowed institutions for the highest and equal training of both sexes,—in certain departments separate and in others united,—thus promoting economy in using endowments, and increased social, intellectual, and moral benefits? Some of our managers favor each of these methods, while for myself I have not a decided opinion. I feel, rather, that it is a subject which needs first thorough discussion, and next, experimental tests. Suppose our managers have half a million, and should

establish, in close vicinity to your university and community, a university in which all the teachers and pupils are in families of from ten to fifteen, all engaged in domestic employment part of each day, and at other hours in study."

Upon the day on which the university was formally opened, the Hon. Henry W. Sage went to President White and said: "When you are ready to carry out the idea of educating young women as thoroughly as young men, I will provide the endowment to enable you to do so." With Mr. Sage, the higher education of women had become a thorough conviction, and the wisdom and naturalness of educating both young men and women in the same institution admitted of no question. He was not at that time a member of the Board of Trustees, to which he was elected two years later, on June 30, 1870. During the first year of his connection with the university he offered to erect and endow a college or hall for the residence of young women, and at the meeting of the Board of Trustees held in Ithaca, June 21, 1871, President White, in presenting his annual report, discussed and favored the admission of women to the university. His recommendations were referred to a committee consisting of Messrs. White, Weaver, Sage, Andrews, and Finch. The formal report of this committee was presented at the meeting of the Board of Trustees, which was held in Albany, February 13, 1872. The report was adopted unanimously, one member alone withholding his vote. The gift of Mr. Sage was formally accepted, and a special committee was appointed to decide upon the plans for the proposed building. On October 9, 1871, Miss Emma Sheffield Eastman, a student of Vassar College, applied for admission to the university. She stands at the head of the long list of women students who have since studied and graduated here. Until her formal

admission she attended, by the consent of the various professors, their lectures. The students, who saw in this enterprise a forerunner of woman's emancipation in education in the university, looked with cold and averse glance at this reformer of educational theories; however, she was later formally matriculated as a student, although Mrs. Jennie Spencer had presented herself as early as in September, 1870, with a certificate entitling her to a state scholarship, and passed with credit the additional examinations required.

The committee to which had been referred the investigation of the question visited the leading institutions which had already admitted women students. They conducted an extended correspondence with eminent educators, seeking to obtain their views upon the principle involved. The majority of the responses to the committee were overwhelmingly against the admission of women. Some regarded it as contrary to nature, as likely to produce confusion, dangerous, at variance with the ordinances of God; on the other hand, several principals of normal schools reported in favor of the success of the experiment in those institutions. The testimony was most positive from those who had seen the experiment of co-education tried. Some of the oldest and most venerated educators of the country, men whose temper would cause them to be ranked with conservative educational forces, favored the experiment. President Hopkins of Williams College believed that a continuation of the association in study which had begun in the common schools would present many advantages, and he hoped that the experiment would be tried. President Nott, in a letter to a committee of the Board of Regents, had said: "I would like to see the experiment tried under proper regulations, and were I at the head of the university in Michigan, and public opinion called for the

trial of the experiment, I should not oppose obedience to the call. Corporations are conservative; it is their nature not to lead, but to follow public opinion, and often far in the rear. That it [co-education] will not be approved by college corporations generally may be taken for granted." The testimony was, however, decisive from such institutions as Oberlin, the State University of Michigan, the Northwestern University at Evanston, the State Industrial University in Illinois, and Antioch College. The testimony as to the influence of the young women in contributing to a higher tone in university life, to the abolition of certain rudeness and uncouthness in student manners, was abundant and conclusive.

It was deemed best that a separate home on the university grounds should be provided for the young ladies, and there seemed to be a peculiar fitness in connecting the departments of botany and horticulture with it. The committee, therefore, recommended that in connection with the new college there should be associated a botanical lecture room, conservatory, greenhouse, and botanical garden. The question which has been variously settled in different colleges for women, whether the "cottage" system, by which separate attractive homes are erected upon the college grounds for a limited number of young ladies, or the system by which all are accommodated in one large building, should be adopted, was discussed. It was decided to erect on the university grounds a large college building, complete in all respects, with lecture rooms, special recitation rooms, infirmary, gymnasium, bathing rooms, study, and lodging rooms for from 150 to 200 lady students, a building which would form a striking architectural feature in connection with the university. The gift of Mr. Sage was formally accepted under the conditions named by him, and the establishment created

under it designated as the Sage College of Cornell University. The corner-stone of the institution was laid on March 15, 1873. Among those who participated on this occasion were the Hon. Henry W. Sage, the Hon. Ezra Cornell, President Angell of the University of Michigan, Chancellor Winchell of Syracuse University, Dr. Moses Coit Tyler, Professor Goldwin Smith, and Col. Homer B. Sprague, who had been the first professor of rhetoric and oratory in the university. The address of the Hon. Henry W. Sage is noteworthy, as it illustrates the noble purpose which he had in view in making his gift. He said: "We meet to-day upon this beautiful hillside to inaugurate an enterprise which cannot, I think, but have an important influence upon the future of this Commonwealth and of our race. It has been wisely said that 'who educates a woman educates a generation,' and the structure which is to be erected over this corner-stone will be especially devoted to the education of women, and will carry with it a pledge of all the power and resources of Cornell University, to provide and forever maintain facilities for the education of women as broadly as for men." He closed with the words: "When this structure shall be completed and ready for its use, let us look up and forward for results; and if woman be true to herself, if woman be true to woman, and both be true to God, there ought to be from the work inaugurated here this day an outflow which shall bless and elevate all mankind." The corner-stone was laid by Mrs. Sage with these words:

"I lay this corner-stone, in faith
That structure fair and good
Shall from it rise, and thenceforth come
True Christian womanhood."

Among the articles deposited beneath the corner-stone was a letter addressed by Mr. Cornell to the com-



KAPPA ALPHA

ing man and woman, the contents of which were unknown save to the author. In closing his remarks he said: "The letter, of which I have kept no copy, will relate to future generations the cause of the failure of this experiment, if it ever does fail, as I trust in God it never will." The mysterious contents of this letter are reserved for the information of some distant generation. The college was formally opened for the admission of women at the opening of the fall term of 1874. From that date women have been admitted freely to the university. They have attended recitations and lectures, and engaged in laboratory work in all departments. Some have entered in agriculture and in architecture, and one or more even in mechanical engineering. The proportion of lady students during the first years of the university was about one-tenth of the entire number of students. Since then it has somewhat increased. The character of the scholarship which they have sustained, the scientific investigations which have been embodied in the theses submitted for graduation, and the high merit which has attached to their work as a whole, all bear witness to the wisdom of the policy by which young women were originally admitted to the university.

The proportion of women to men in the College of Arts and Sciences has remained quite uniform for many years, the percentage being between thirty-three and thirty-five per cent.

While in some universities the number of women has been limited, and in others instruction has been separated from that of men, "co-ordinate education" and separate buildings and teachers provided, and even demonstrations on the part of men against women, nothing of the kind has occurred here. Dignity and self-respect have characterized the bearing of the young women. They reside, so far as opportunity

affords, in the Sage Hall or cottage, but they select freely their residences in the city. That which was feared as necessary when co-education was introduced—the minute regulation of conduct and constant supervision—has not been found necessary. In the early days, it is true, there was occasionally a maiden of a pronounced type who came as a proto-martyr, who stalked defiantly through groups of male students, who felt herself the representative of a new idea, the forerunner of a reform which was to emancipate her sex; but these have practically disappeared. There was early a class from cultivated families whose members espoused theoretically the cause of reform, and sent their daughters to an institution which had the stamp of their approval. The aggressive type of woman student is a thing of the past. The young women who come are from all classes in society, who come here because the university offers the widest advantages for culture. Many intend to be teachers; all are earnest and refined. They are welcome to the social events of the university world. They hold in the Sage their class theatricals; they caricature privately whatever appeals to their humor. They have their secret societies, their clubs, their basket-ball contests, and no criticism is evoked or breach of decorum perpetrated. They give at times successfully attractive plays in the Sage Gymnasium or Barnes Hall, or under the oaks in the open air.

Wise and cultivated ladies have been chosen as wardens of the Sage, who have been companions, kind advisers, gentle ministrants in sickness or trouble. Thus the life of the girl students is earnest, bright with diversion, and they graduate bearing the happiest memories of their college life.

CHAPTER XVIII

THE RELATION OF THE UNIVERSITY TO THE CHURCH

IN the act passed May 1, 1784, at the close of the Revolutionary War, changing the name of King's College in New York to that of Columbia College, and erecting a university within the state, it was provided that no professor should in any wise whatsoever be accounted ineligible for or by reason of any religious tenet or tenets that he might or should profess, or be compelled by any by-law or otherwise to take any religious oath. In the act of May 13, 1787, in the famous report recommending a revision of the charter of Columbia College presented by Alexander Hamilton, it was stated that the erection of public schools was an object of very great importance, which ought not to be left to the discretion of private men, but be promoted by public authority. On April 13, 1787, a law embodying the views of the Board of Regents was passed establishing a state university, the general provisions of which still remain in force, and which has formed the basis of the present system of collegiate and academic instruction in the state. This act repeated the provision of the original law in different words, stating that no president or professor should be ineligible for or by reason of any religious tenet that he might or should profess, or be compelled by any law or otherwise to take any test oath whatever. Under this clause it was held that it was impossible for a college to be converted to sectarian purposes. The men who formed the Constitution of the United States were resolute in upholding the separation of Church and

State, and in making the educational system of this country as free as its political. In the petition for a charter for Union College, presented December 18, 1794, the second provision of the proposed charter provided that a majority of the Board of Trustees should never be composed of persons of the same religious sect or denomination. In the formal charter of the college this principle was fully incorporated. The first principle of religious equality contained in any college charter in this country is perhaps that in the charter of Brown University, which was adopted on the last Monday in February, 1764: "It is hereby enacted and declared, that into this liberal and catholic institution shall never be admitted any religious tests; but on the contrary, all the members hereof shall forever enjoy full, free, absolute, and uninterrupted liberty of conscience, and that the places of professors, tutors, and all other officers, the president alone excepted, shall be free and open for all denominations of Protestants, and that youth of all religious denominations shall and may be freely admitted to equal advantages in the emoluments and honors of the university, . . . and that sectarian difference of opinion shall not make any part of the public and classical instruction." Views like these constituted hereafter a part of the educational system of the state of New York. Similar views received recognition in the University of Michigan, where the policy in matters of religion was declared to be identical with that of the common schools. Persons of every religious denomination were capable of being elected trustees, and no person, president, professor, instructor, or pupil, was to be refused admission for his conscientious convictions in matters of religion. In the charter of Cornell University the principle contained in the charter of Union College was stated, with the

additional limitation: "But at no time shall a majority of the board be of one religious or of no religious sect." This principle, therefore, corresponded to the enlightened provisions of the charter of our State University and to the broad and liberal spirit in matters of religion which pervaded the founder of the university. In the inaugural address of President White it was stated: "Into these foundation principles—that is, the union of the scientific and the aesthetic with the practical—was now wrought another at which every earnest man should rejoice: the principle of unsectarian education." Higher education in America had been begun and fostered in all institutions by Christian men, and had it not been for such support, no provision would perhaps have been made for many years for higher education in the United States. To education as a factor in social order was joined the desire to train men for the ministry, and to Christianize the savages. A second provision was that persons of every religious denomination or of no religious denomination should be equally eligible to all offices or appointments. And further, President White in his inaugural address said: "We shall not discard the idea of worship. This has never been dreamed of in our plans. The first plan of buildings and the last embraces the university chapel. We might, indeed, find little encouragement in college chapel services as they are often conducted—prayers dogmatic or ceremonial, praise with doggerel hymns, thin music, and feeble choir, the great body of students utterly listless or worse. From yonder chapel shall daily ascend prayer and praise. Day after day it shall recognize in man not only mental and moral, but religious want. We will labor to make this a Christian institution; a sectarian institution may it never be."

This limitation upon the choice of trustees has prob-

ably never been seriously considered in the election of any member of the board; and doubtless at no time has it been possible for anyone to state the proportion of trustees who were members of any particular religious denomination or of no denomination.

At the opening of the university, the large lecture room on the fourth floor of the south university building, now Morrill Hall, inconvenient as it was of access, was called the Chapel, and religious exercises, to which attendance was voluntary, were held every morning at eight o'clock. Services were conducted by Reverend Professor W. D. Wilson, consisting of the reading of a passage of Scripture, the Lord's Prayer, and certain collects from the Prayer Book. These exercises were conducted with great faithfulness by Dr. Wilson for five years. As few of the students were accommodated in the university buildings, and many had no recitations upon the hill at the first hour, attendance upon morning prayers was very limited. The veteran chaplain, after continuing them for several years, stated with assurance that he had always had one present. Inquiry did not elicit the fact whether that one constituted the reader, or a solitary worshiper.

In the erection of the Sage College, it was proposed that the present large botanical lecture room should constitute the University Chapel. The erection of the present chapel is immediately due to the pure and beautiful suggestion of Mrs. Henry W. Sage. As the plans for the new college were hastily examined in Brooklyn one evening, she inquired: "Is that the only provision in that great university which is made for religious services?" On the following morning, Mr. Sage called upon President White and stated that, if he would go with him and select the site of a chapel, he would give the same to the university. This occurred in 1872. Professor Babcock was the architect of the

new chapel, which was erected during the year 1874-75. It was designed to accommodate 500 students, the number of students then in the university being about that number. The south transept was designed to be occupied for morning prayers, but prayers were only held there a few times, if at all. The number of students who resided upon the hill had gradually become smaller, as the needs of the university made it necessary to use rooms in the two dormitories for purposes of instruction. The University Chapel was formally dedicated by the Rev. Phillips Brooks of Trinity Church, Boston, who preached from the text: "What I tell you in darkness, that speak ye in light," on June 13, 1875, in a memorable discourse. In his address to the graduating class he emphasized the words, "and the common people heard him gladly." But after the erection of the Chapel no funds were available for the support of preaching or of a university pastor. Under these circumstances Mr. Dean Sage of Albany made possible the realization of the noble purpose of his father in the erection of the Chapel, by the gift of thirty thousand dollars, the income of which should be spent in paying the salary of a university pastor, or the expense of university preachers. The question of how the best results were to be obtained in the use of this fund was one which received serious consideration. President White was familiar in his own college experience with the institution of a college pastor, with obligatory attendance upon religious services. He opposed energetically the idea of compulsory attendance at morning prayers and at chapel services, believing that worship, to be acceptable and successful when associated with a university, must be voluntary. His own visits to the services connected with the English universities, and his fondness for music, led him to desire that the musical feature of the chapel service

should be made prominent, and he has always advocated the establishment of a musical professorship in connection with the university, the holder of which should be musical director of the university. During the years past the most eloquent representatives of the various denominations have preached in the Chapel, and whatever eloquence and ability could contribute to make the present plan a success has been realized. The absence of a church organization in connection with the Chapel constantly leads large numbers of students to connect themselves with the churches in town, the services of which they attend. It is obviously necessary that preachers who are called to the university chapel should be gifted as pulpit orators, but above all that, that they possess the power to appeal to young men. Mere theologians who have appeared in the university chapel have, as a rule, failed to secure the attention of the students, or to produce a lasting impression. It is also necessary that the preachers should be known, men of recognized ability and reputation; for in no organization, perhaps, does the reputation of the individual preacher exercise so important an influence upon his audience as in the voluntary system of chapel services. Men of great excellence and ability, but unknown, have constantly failed to attract an audience. It must be admitted that a pulpit thus conducted, without a church, has the character of a religious lectureship, and students are prone to regard attendance upon it as, in part, a matter of indifference. A chapel that will seat eight hundred people has proved adequate, as a rule, to accommodate a university population which numbers at least three thousand. It may well be queried, after an experiment extending over twenty years, whether the system in vogue has been so successful that the Chapel has become, as it properly should, the center of the religious



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life of the university, and has acquired a constantly increasing hold upon the students. Preachers come, fulfill their engagement, and disappear; they are often unknown, and after a few hours return unknown to whence they came, leaving little or no impression upon the university world. Many able preachers from city pulpits, of large reputation and influence, fail in the presence of an academic audience. Eminent theologians, successful clerical editors, popular denominational orators, often lack the personal address, the human sympathy which appeals to the student world. The personal admiration which so often urges local representatives for the university pulpit is an unsafe test of success in that place. A single mistake in the choice of a preacher at the opening of the college year frequently leaves the student listless and discouraged as regards the result of a subsequent experiment in church-going, which he is often indisposed to make. On the contrary, preachers who possess a genuine sympathy with young men seldom fail to meet a responsive audience and to receive cordial recognition. Peculiar gifts are demanded of those called upon to address students. The question has been solved of late in different ways. Harvard has probably attained the most satisfactory solution with a resident college pastor of recognized ability as a preacher, who possesses an interest in all questions which concern thoughtful students. He is in permanent residence, to whom all students may go for counsel. To him are joined clergymen of different denominations, who are in residence for four weeks at a time. These are men of marked eminence, and chosen distinctly for their power to influence young men. These five preachers, in conjunction with the Professor of Christian Morals, arrange and conduct the religious services of the university. Each one conducts daily morning prayers for about three weeks in

the first half of the year and about three weeks in the second half of the year, and preaches on four successive Sunday evenings. The preacher who conducts morning prayers is in attendance every morning during his term of duty, and is at the immediate service of any student who may desire to consult him. This arrangement places at the disposal of the students a greater amount of pastoral service than most ministers can give to their own parishes. On Thursday afternoons, from November until May, vesper services are held in the University Chapel, largely musical, with a full male choir of forty members, and an address is made by one of the staff of preachers. College conferences are also held, at which addresses are delivered by the professors upon the Bible in its literary, ethical, and religious aspects. Under this system there is a permanent pastor, and, at the same time, the pulpit services are conducted by clergymen whom the students come to know, and who alike know their audience and can adapt their service to them. Its success has been so great that in many colleges where there is a permanent pastor the essential features of this plan have been more or less fully adopted. The University of Virginia, also an undenominational institution, has a resident pastor for a fixed number of years, chosen in turn from several of the leading denominations of the state. Either system promises more success than a series of disconnected preachers, with varying subjects, arranged without consultation, who acquire during the few hours of their residence in Ithaca slight acquaintance with the needs of the student world.

The absence of a dormitory system, through which students find a home upon the university grounds, has been a serious obstacle in the development of systematic attendance upon chapel services. An over-

whelming majority of the students reside in the city, at a distance from the university, and thus are not favorably situated to attend daily services, and are nearer to the churches of the city, whose able preachers prove a stronger attraction to them than unknown preachers in the Chapel.

The Christian Association was one of the earliest societies formed in connection with the university. The first number of the *Cornellian*, in a list of five hundred and seventy-one students, contains the names of forty members of the association. For many years a devoted body of students met on Sunday, and for a Bible class or prayer meeting on week-days, in the Society Hall in the north building, now White Hall. Later, under energetic leadership, it undertook the elaborate enterprise of raising funds to erect on the university campus a building for the use of the Christian Association. It had proceeded a certain distance in this enterprise, when Mr. Alfred S. Barnes of New York offered to give a sum sufficient to complete the proposed building. This building was designed to contain lecture rooms, Bible-class rooms, reception rooms, parlors, library, and rooms for a permanent secretary and others. The beautiful structure, which was erected in 1889, has proved the center of the religious life of the university. Its rooms are freely at the disposal of all the religious societies. One recent feature of the religious life of the university has been the formation into societies, circles, or unions, as they are variously called, of the students of the several denominations. Thus the Presbyterian, Baptist, Methodist, Unitarian, Episcopalian, Roman Catholic, and other students have been united into guilds or organizations, the main purpose of which is to cultivate mutual sympathy, and to perpetuate the associations with which they are familiar at home. The greatest catholicity

exists in the relation of these various organizations to one another, and they frequently participate in receptions, lectures, and excursions in common. The religious activity of the students manifests itself in very beneficial ways: in the reception and care of new students arriving at the university; in a watchful interest over sick students, and in holding religious meetings in various communities at a distance from Ithaca, where no other religious services are held. Systematic and classified schemes for Bible study are presented each year, and numerous classes for the study of different portions of the Bible, its antiquities, literature, history, and of practical ethics, are arranged. Special lectures and addresses from clergymen, and often from members of the faculty, are held during the winter term when there is no preaching service in the chapel. The number of members at the present time is about six hundred, making the association, it is said, one of the largest university Christian Associations in the country, possibly in the world. The association supported for several years a graduate of the university in Japan, who sought to found there similar organizations among the young men of the cities and universities of that country.

The Christian Association has had not only a religious purpose, but one of practical beneficence as well. It has become the center of numerous agencies for providing students with work, securing homes for them, and for conducting schools and religious services in remote communities around Ithaca. In a single year it secured positions for one hundred and thirty-five men.

CHAPTER XIX

THE ALUMNI

A NEW element in university administration has been introduced, in giving to the alumni the right of representation upon the Board of Overseers or Trustees. It was expected that a double object would be attained by this measure: that new men, having a personal interest in the university and a recent knowledge of its needs, would become a part of the government, and that the alumni would sustain a permanent relation to the institution, when directly associated in its management. This may be regarded as an adaptation of the English university system, by which masters in residence for a part of the year at Cambridge form the senate, and at Oxford the convocation—legislative bodies to which all regulations are submitted for discussion and approval. Graduates who retain connection with the university are thus enabled to contribute the results of their learning to the decision of all matters affecting chairs of instruction, degrees, and government. The contrast which exists in the scholarship of English and American students upon graduation makes the experiment in the two cases far from identical. The class to which authority is entrusted in the English universities is, in extent of study and experience, far in advance of our own graduates, and is composed in most cases of professors and resident masters pursuing liberal studies still farther. In some colleges in this country, the right to participate in these elections is limited to graduates of five years' standing, but if it is

important to continue the relation of the alumni to their university, this delay in conferring the right of suffrage until after a considerable period of separation from the college has certain disadvantages. The fact that so large a portion of the alumni of our colleges are scattered throughout the land, and thus removed from an opportunity of voting in person at Commencement, is obviated in some cases by a provision enabling a ballot for alumni trustees to be sent by mail, which is counted as if delivered in person. Any method which will retain the active interest of the alumni in their *alma mater* is worthy of examination, and possibly of trial. The first university in this country to introduce the principle of alumni representation in the choice of trustees was Harvard University. It was proposed as early as 1854, and a bill was introduced in the Senate of Massachusetts in that year, which passed through most of the preliminary stages but failed to be enacted owing, it is said, to the pressure of business at the close of the session.

On April 28, 1865, an act was passed by which the right to choose the overseers of Harvard College was transferred from the General Court or legislature to graduates of five years' standing, who should vote by ballot on Commencement day, in the city of Cambridge. The choice of overseers was at first limited to citizens of Massachusetts, but by a supplementary act, passed March 5, 1880, persons who were not inhabitants of the Commonwealth, but otherwise qualified, were made eligible as overseers of Harvard College. In the act establishing Cornell University, no mention is made of the election of trustees by the alumni, but in an amendment to the charter, passed April 24, 1867, it was provided that whenever the alumni of the university should reach the number of one hundred, they were empowered to elect one trustee. By an amendment to

the charter passed May 15, 1883, it was provided that members of the alumni who were not present at Commencement might send in their ballots in writing. The difference between the Harvard provision and that of Cornell consists in the fact that at Harvard there are two governing bodies, the fellows or corporation and the overseers, who exercise the right of veto upon all action of the corporation. The graduates of Harvard have the right to elect the entire board of overseers, consisting of thirty members. Their influence may thus be exerted at once effectively, in determining all questions of policy, through the overseers. At Cornell there are thirty elective trustees, ten of whom may be chosen by the alumni. The power thus conferred is limited, when compared with that of the alumni of Harvard. In further distinction from the Harvard system, all Cornell alumni, wherever resident, may participate in the election of trustees. The system may now be tested by its results, as nearly thirty years have passed since its introduction. It may be premised, that where there is a large and intelligent body of the alumni residing in the vicinity of a college, attendance upon the meetings of the trustees and active participation in the decision of all university questions are possible, and the results attained of a different order from what occurs when the alumni are widely scattered. A choice of the ablest and most influential scholars and educators may be made, whose residence will permit them to give the most careful attention to the interests of the university; but it may be questioned whether the results under the present system have fully equaled the expectations which had been formed. The character of the trustees or overseers elected by the alumni has not greatly differed from those previously chosen. In most colleges, a majority of the trustees have always been graduates of the col-

lege, and the fact of an election by the alumni did not change their essential character. Where alumni trustees have been substituted for a long list of *ex-officio* members, as at Yale or Harvard or elsewhere, there has been a real gain. At Harvard, however, the substantial power still rests with the corporation, which is, in the main, a self-perpetuating body, while the overseers have only the right of confirmation of its nominations, and do not originate action. An alumnus is chosen for prominence in social or political life, or for eminence as a lawyer or clergyman, and not because he has any intelligent acquaintance with the history of education, or is qualified to judge of the demands of higher learning at the present time. Local considerations often influence the selection of candidates, and party interests are not always forgotten. Men are elected who can snatch but a hasty moment from the pressing demands of professional life, to decide upon questions affecting the permanent educational interests of the nation, and to judge of the standing and qualifications of professors in all departments of learning. The election is often determined by a small proportion of the alumni who are able to be present or have an interest in voting. In such cases an active local interest or an aggressive partisanship may prevail, and a choice occur based upon some remote college or society popularity. The attendance of trustees so chosen has not always been secured, and only a measure of success under favorable circumstances may at present be considered as attained by the system.

On several occasions the influence of the alumni has been very advantageously felt in presenting their views in regard to questions of university policy. One of the most notable instances of this kind was in connection with the subject of honorary degrees. It had

been the settled policy of the university from the beginning to bestow no honorary degrees. Soon after the beginning of the administration of President Adams, he recommended the bestowal of honorary degrees, believing that a time had been reached in the history of the university when such degrees might be properly conferred in recognition of distinguished attainments by our own graduates or others. At the second Commencement of the university, President White had stated publicly and explicitly that it was the policy of the university to bestow no honorary degrees. The University of the State of New York had bestowed upon Professor Goldwin Smith the degree of Doctor of Letters, in recognition of his high scholarship and distinguished services to education both in England and America, and, above all, of his generous identification of himself with the various educational interests of the state. This degree was formally presented at Commencement, 1870. Upon this occasion, President White stated that the trustees had decided to confer no honorary degrees, but he was gratified to have the honor of announcing that the Regents of the State of New York had delegated to him the pleasure of conferring the degree of Doctor of Letters on one whose labors in the field of letters the world is proud to acknowledge, Goldwin Smith. The trustees, under the impression that the faculty of the university favored the proposed change in policy, passed a resolution in favor of granting such degrees. This resolution was opposed by the alumni representative in the Board of Trustees, but the latter decided that the provision requiring the concurrence of two-thirds of the members of the faculty would guard against any danger which might arise from an indiscriminate and unguarded bestowal of such degrees. Immediately after this action, four names were pre-

sented to the faculty for honorary degrees, whose merits the faculty would have been glad to recognize, had they not felt a pride in the honor of the university, which enabled them to say that every degree conferred had always been earned and established by satisfactory courses of study, and confirmed by the requisite examinations and theses. Of the names presented to the faculty, one received twenty votes out of twenty-two cast, and one eighteen, in each case less than half the faculty. The question having been raised whether the resolution of the trustees contemplated the approval of any nomination by two-thirds of the resident members of the faculty, or by two-thirds of those voting, the question was referred to the trustees for decision, and the remaining names which had been presented were withdrawn. In reporting the action of the faculty to the trustees, the question of the interpretation of the law which had been raised was not presented, and these two degrees were voted by the trustees, and stand alone as the only honorary degrees ever conferred by the university. Under these circumstances, a majority of the alumni presented a memorial to the trustees and faculty of the university protesting against the adoption of the policy of bestowing such degrees as injurious to the university. It was shown that in eighteen years, 1,102 first degrees and 82 second degrees had been conferred, and that for every advanced degree a certain specified amount of work, under careful supervision, with residence, together with the presentation of the proper thesis and examination, had been required; that if the policy of conferring advanced degrees without study and residence were pursued, the value of all degrees would be impaired, and graduate students would have less incentive to pursue their studies in course for degrees which might otherwise be obtained "*honoris causa*." It was believed that such a policy, involving

as it did a distinction between different members of the alumni, would result in final harm, and in an appreciable loosening of the bonds of loyalty. The various departments of the university were so numerous that it would be difficult to determine between the merit of students distinguished in different branches. To attempt to weigh, for example, the claims of an alumnus who has written a successful novel against the claims of one who has built a great bridge or made an important scientific discovery, or achieved marked success in any profession, was manifestly absurd. "You cannot," says De Quincey, "affirm imparity where the ground is occupied by disparity." Where there is no parity of principles, there is no basis for comparison. How, then, can any body of men determine the conflicting claims of the graduates of various and widely divergent departments? It was shown that in the year 1884, sixteen obscure colleges in this country had conferred ninety-nine degrees in course, and seventy-two honorary degrees; and that in the year 1883, five hundred honorary degrees were conferred in the United States. President Barnard at Columbia College had recommended a most stringent policy "in consequence of the constant and annoying pressure upon the board by outsiders, by whom every form of social and even occasionally political influence was brought to bear to induce them to confer academic honors upon persons doubtfully deserving." President Gilman had stated: "The whole system as at present maintained is full of fraud towards the public, unfairness towards men of letters, and dishonor to the name of learning and to the thought of academic honor." Boston University had boldly adopted the policy and announced it in its catalogue. "The university confers no honorary degrees of any kind." The claims which might be brought to bear upon the university by successful politicians who have

risen to high positions in the state and national governments might not be easy to be resisted. This significant appeal to the faculty was signed by the presidents of the alumni associations of Ithaca, New York, Central New York, Western New York, New England, Northeastern Pennsylvania, Washington, Chicago, Minnesota, and Ohio. Upon its presentation in the faculty, the faculty referred it to the trustees with a unanimous approval, where a resolution was likewise passed without a dissenting voice rescinding the vote concerning honorary degrees. On other occasions when the opinion of the alumni upon questions of university policy has been presented, it has always received full and respectful consideration. Such occasions have occurred in connection with the choice of a president, with the question of professors' salaries, and the erection of buildings.

At the annual meeting of the alumni held on June 18, 1884, it was

Resolved, That the trustee last elected by the alumni shall, at the end of the first year of his office, make a written report on the conditions and needs of the university to the associate alumni at their annual meeting in Ithaca, said report to be submitted in writing to the other alumni trustees, and their dissent or approval to be endorsed thereon before presentation.

It was also

Resolved, That such report be printed by the alumni, but that the association shall not be considered as adopting the views presented.

Since 1885 the alumni trustee last elected has presented to the assembled body of the alumni, at their annual meeting in Commencement week, a report upon the condition of the university, with a review of its condition and policy, accompanied by such recommendations as he deemed best. These reports of the

alumni trustees have often been of great value. They have always embodied a generous and grateful recognition of the indebtedness of the university to the faculty, and a jealous regard for academic liberty. President Jordan, of the class of 1872, in his report of 1888, said: "But buildings, equipment, libraries, departments,—students even,—do not make a university. It is the men who teach. How will Cornell stand the tests which we may apply to her faculty? The faculty was the glory of the old Cornell. It was the strength of the men whom, with marvelous insight, President White called about him in 1868, that made the Cornell we knew. Everything else was raw, crude, discouraging, but with the teachers was inspiration. We cannot look on the Cornell of 1870 as an inferior school, for it was not, scanty as its material outfit may have been. I have even questioned whether the pioneer work of those times, the work of blazing the educational road, did not make a deeper impression on the student's mind than the perfect methods and well-oiled machinery of to-day. But a visit to the various classrooms shows the old leaven still at work. In no respect, I believe, does Cornell now make so good a showing as in her faculty. Of all her many departments, there is scarcely one that does not feel the impulse of a strong man at its head. Nowhere in this country, I believe, is so able a band of instructors gathered together as at Ithaca.

"In nothing connected with the growth of Cornell have the alumni taken so deep an interest as in the selection of the faculty. We have felt the right to form high expectations here. We have felt that no second-rate or second-hand man should find place at Cornell while first-rate men can be found anywhere in America—anywhere in the world. We have felt that to Ezra Cornell's statement, 'I would found an

institution where any person may find instruction in any study,' the Board of Trustees should add, 'We will maintain an institution in which every subject which is taught shall be taught in the best possible way.' Not how many things, but how well, is the essence of the higher education. And in this connection, Emerson's words come to us: 'Colleges can only serve us when they aim not to drill, but to create: when they gather from afar every ray of various genius to their hospitable halls, and by the concentrated fires set the heart of their youth on flame.'

"The 'subtle influence of character,' the association with men, has been the heart of the Cornell education in the past. No one can go through the various laboratories and lecture rooms of to-day without an overpowering conviction that *men* are still there. A professor to whom original investigation is unknown should have no place in a university. Men of commonplace or second-hand scholarship are of necessity men of low ideals, however carefully that fact may be disguised. A man of high ideals must be an investigator. He must know and think for himself, and only such as do this can be really great as teachers. The highest function of the real university is that of instruction by investigation, and a man who cannot and does not investigate cannot train investigators.

"There are some men at Cornell whose work is too precious to science and literature to compel them to spend their time and strength in teaching boys the rudiments of knowledge. I lately heard from a German professor a strong argument for the appointment, by a real university, of professors who teach no classes at all, devoting their time and strength entirely to advanced research. Their presence and example may be worth to the student-body a hundred-fold more than the precept and drill of the others. They set high

standards of work. They help create a university atmosphere—a university spirit without which any college is but a preparatory school of little higher pretensions. ‘Famous men make famous institutions, and unless the teachers have time and means for working on their specialties and to make themselves known,—if they are compelled to spend all their time in routine classroom work,—they can never rise above mediocrity.’

“Of the days when the University of Munich was great, Agassiz says: ‘Every one of our professors was also eminent in some line of research. They were not men who taught from text-books or even read lectures made up from extracts of original works. They were themselves investigators, daily contributing to the sum of human knowledge.’ That this was true meant greatness in the university. That this is no longer true is the mark of the university’s decline.

“I do not advocate the creation of professorships for researches alone, because our educational system is not ready for it. American colleges are too practical for that. This, however, is true. Cornell will not reach her highest possibilities until each of her professors can make the most of himself, until each head of a department comes to feel that it is as much a part of his duty as professor to add to the sum of knowledge in some part of his field as it is to assort and disseminate the knowledge amassed by others. When this is the case the graduate students will flock to Cornell, and Harvard, Johns Hopkins, or Germany will cease to be the sole possibilities for students eager for advanced education.”

The report of Mr. Robert H. Treman, of the class of 1878, presented in 1892, discusses the compensation of professors, and shows a careful study of the importance and of the difficulty of the subject, and at the

same time contains an earnest plea for justice and fair consideration.

“ The question of a fair and equitable adjustment of the salaries of those who comprise the teaching force of a great institution of learning has become one of the most difficult subjects in university administration. Probably most of the alumni are familiar with the policy of Cornell in the past on the salary question, which has been to have a uniform basis of salary in the early years of the university; this has been gradually advanced from time to time as the finances of the university would permit, until now the basis for a full professor is three thousand dollars and the assistants correspondingly less. But although the policy of the university, as stated, has been to have a uniform basis of salary, this policy has been broken over and larger salaries have been paid in several instances during the last few years when it became necessary to draw men to vacancies in our faculty who could command larger salaries than were being paid here. This discrimination in favor of a few professors has undoubtedly led to much dissatisfaction with the present method. That there has been just cause for complaint in regard to the present schedule of salaries I have no doubt, as many of the professors who have been here for some time, and who are receiving the regular professor's salary, are doing just as good and as important work, and they themselves are worth as much to the university, as others who have been brought from outside at quite an increase over the uniform rate of compensation for full professors. The necessity for either the adoption of a new policy in regard to the salaries of professors, or an entire readjustment of the old method, has been emphasized during the past year by the demands which have been made upon the different faculties of the large universities and col-

leges of the country by new universities. The desire and intention of these institutions to draw to their faculty the best men from other institutions has led to their offering very much higher salaries than it has been customary to pay—in some cases fifty to one hundred per cent. higher than the average salary paid full professors. The demoralizing effect of such active competition, with its resultant high salaries, has been equally felt here at Cornell, and the strong efforts made to draw so many of our best men by offers of attractive salaries has made the past year a very difficult one in administration.

“ In the discussion of this question of salary I trust that I will not be understood as advocating its adjustment as merely a mercenary or commercial transaction governed simply by the laws of supply and demand, but rather that in each case the value of the professor to the university be judged, not from one standpoint, only such as his popularity with the student body, but from every standpoint, and all of them taken into consideration in fixing the amount of his salary. There should be in the future more than there has been in the past, an endeavor made to develop a general policy of recognition for faithful work by professors connected with the university, which shall be entirely independent of any external stimulus. In fact, I cannot conceive of any movement which would tend to foster a better *esprit de corps* in Cornell's faculty than the prompt recognition on the part of the Board of Trustees of those professors or members of the teaching corps who from time to time show unusual devotion to their duty, whose work brings honor and glory to Cornell, and who are signally successful as teachers, and in such cases, if proper advances in salary were made to such professors without any solicitation on their part, thus showing to them that they will always

be sure of fair treatment and prompt recognition so long as they retain their connection with Cornell and maintain a high standard of work, it would tend to make it a very difficult thing for any institution to draw to another field any member of the faculty."

The report of the Hon. Charles S. Francis, of the class of 1877, presented in 1894, discusses the relative rank of professors as bearing upon their usefulness.

"In its faculty lies the strength of any university, and I am strongly impressed with the belief that it is of the highest expediency on the part of Cornell not only to win but to hold the loyal devotion and enthusiastic co-operation of the members of its teaching corps. So far as I can judge, it seems to have been the long-settled policy of our University to have a single head in each of the several departments upon whom devolves the responsibility for failure, and to whom, incidentally, accrues the honor of success in management. This plan might be followed advantageously in the direction of military affairs, where individuality is largely sacrificed; it is believed, however, that the best results cannot be accomplished by the observance of such a policy in an institution like Cornell University. Every man's individuality should be utilized to its fullest extent, and this can only be done by giving him the independence necessary to his self-respect, and, if worthy, by putting him in a position where his judgment, experience, and reputation may be exercised in the interest of the university and for the advantage of his own department. In the past, it is true, departments have been divided at Cornell without loss of dignity to those who were formerly heads of such departments; but the spirit of progress in this direction has not, in my judgment, sufficiently animated the governing board. This can probably be attributed to the



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observance of the general policy pursued by the university.

"It is certainly wise on the part of the trustees to encourage loyalty and devotion in the members of the faculty, and to lead them to expect generous recognition for educational results achieved through their agency. Men are worth most in this world when their individuality has full play. This would seem to be especially true of professors in a university where the results of their own experience and ripe scholarship should receive a free and full exercise. Where a professor occupying any subordinate position is practically conducting alone a subdivision of any department on original lines, and his service is deemed entirely satisfactory, I would advocate a division of such department, and, creating a new department, place him at its head. In compliance with a law of nature, all growth must consist in enlargement, and the adoption of this policy would result beyond doubt beneficially to the University. Certainly the conscious disparagement which is inseparably associated with the stamp of a subordinate position would be avoided, new life and added zest would be instilled into the professor by this recognition of his service, the public promotion would be most gratifying to his ambition, and inevitably lead to greater individual effort on his part. It is believed the reputations of many professors are needlessly sacrificed to an unwise system of insubordination.

"There is unquestionably a certain *esprit du corps* which is essential to effective work by the teaching force of a great university like Cornell, and I would cultivate it to the greatest possible extent by making the impression positive in the minds of the members of the faculty that the Board of Trustees will deal fairly with them and, at the proper time, recognize

effective service. My sympathies, I must admit, are with the industrious, faithful, and efficient professor. Much is expected of him, and his compensation is not in a majority of cases commensurate with his merit. Years of diligent study and self-denial are required of him before he is qualified to give advanced instruction, and he is certainly deserving of every consideration that we can properly bestow upon him in the way of encouragement. He is human and has his ambition; I would favor that sentiment, so far as it may be deemed consistent and reasonable to do so. At Harvard great departments are being built up by calling the ablest professors from all parts of the country to fill chairs of instruction. All professors are equal, and each professor is enabled to develop special fields of study in which he is particularly interested or in which his gifts mainly lie, thus developing certain specific branches in the great department and winning distinction and reputation for himself, and thereby reflecting credit upon the university with which he is connected. I believe the subdivision of many of our departments in the manner suggested would be in the line of progress."

Jared T. Newman, Esq., of the class of 1875, in his report of June, 1898, said: "The conditions of successful work are not produced merely by the material equipment with which the professor is supplied. They are largely the effect of the atmosphere in which he moves, whether it be one of discouragement and distrust, or one made healthful and invigorating by the consciousness of mutual confidence and sympathy between himself, his associates, and those who have in charge the conduct of the affairs of the University. The effect upon the professor's life and work, produced by harmonious and satisfactory surroundings and relationships, has not always, I fear, received suffi-

cient consideration from the trustees. Sincere respect, kindly sympathy, recognition of faithfulness and of merit, make him loyal to the university, in harmony with the men about him, and enable him to do his best. If, on the contrary, he is led by the attitude of the governing body to regard its members as heartless, arbitrary, or prejudiced, and he loses confidence in their desire to deal justly with him, it is impossible that he shall accomplish the best results. With some men these considerations are of less weight; to others they are of vital importance in determining the character of their work. The words of Dr. Schurman ring out so clearly and emphatically upon this point that I want to make them mine: 'If it is asserted that the business of the college or university is to teach that which the average man may believe, or that which is acceptable to the university, or that which the Board of Trustees may assert as the truth, the answer must always be that such a course contravenes the very principle on which the university was founded; and, however true it may be that the majority must rule in the body politic, the motto of the university must always be, "One man with God's truth is a majority." It has been urged that the teacher represents a corporation, and that if he expresses opinions or beliefs contrary to the belief of the majority of the corporation he betrays his trust. What profanation! The teacher is the representative of no one but the god of truth; he ministers at the temple of learning and scholarship; and it would be sacrilegious or worse for him to give out as true what he knows is false, or to suppress or by compliance conceal what he holds, in order to be more acceptable.'

"Nothing that I have said is to be construed to justify the professor in his public utterances, from failing to remember that he is a part of the university;

and while he may not be restrained from fear of consequences to himself, he should be influenced by loyalty to the institution to avoid doing wantonly that which may bring her good name into disrepute. Listen to the words of our own Goldwin Smith: 'There are limits to all things, even to liberty of opinion—at least to liberty of speech; and in the observance of those limits no surrender or disparagement of any principle or privilege is implied. A judge, a clergyman, a civil servant, a military man, are all under some restraint in the public utterance of opinions from which the ordinary citizen is free. So, I venture to think, is a professor, or anyone who regulates the teaching of a university; and this is not only when he is in his professorial chair or acting officially as president, but whenever it is possible that what he says may compromise and injure the university.'

"I hold liberty of opinion to be the crown of all liberties, and the only sure guardian of the rest. I should even prefer a despotic government with liberty of opinion to a free government without it; and I believe history would warrant my choice; but I feared, without a more exact knowledge of the case than I had, to take part in condemning the action of the trustees. It appeared to me that they might have been moved by a reasonable anxiety, not merely for the financial interests of the university, but for its reputation and authority, though their language in assigning their grounds laid them somewhat open to misconstruction."

Dr. M. Carey Thomas, of the class of 1877, president of Bryn Mawr, advocated residential halls, and also a high standard of requirement for admission to the professional schools of the university. "Experience in every residence college, whether for men or women, has proved that college dormitories yield an

average net return of from three to five per cent. on the money invested in them; and if residence in college halls has the educational value the president urges,—I think justly,—such an investment is surely a legitimate one for a university that exists in order to give its students the best possible education. Much of the culture and many of the associations of college life are to be obtained only by residence in college halls. More, perhaps, than any other single feature of their college life, it is the civilizing, humanizing effect of living in college halls that is felt in the graduates of Oxford and Cambridge and distinguishes them from other men; and in America there is undoubtedly a certain stamp given at Harvard, Yale, and Princeton to their graduates which is as yet not to be discerned in graduates of non-residential colleges. The University of Pennsylvania has recognized this, and it is universally admitted that since the building of the college dormitories there has been a marked change for the better in the spirit of the undergraduates of the university. Columbia is anxious to build dormitories as soon as the money can be secured; and the Johns Hopkins has failed as an undergraduate school largely, I believe, because the men who would otherwise become the loyal sons of the university are attracted to the residential colleges of Princeton and Yale.

“It is in like manner to be regretted that the new medical school of the university, which opened in the autumn of 1898, did not adopt at once the high standards of the medical schools of the Johns Hopkins University and of Harvard University. The Johns Hopkins University has from the first received only college graduates, whether men or women, who must, in addition to their college degree, present evidence that they have had at least one year's lecture work of four hours weekly, accompanied by the same number of hours of

laboratory work in physics, chemistry, and biology, respectively, and that they possess a reading knowledge of French and German. In and after 1901 the Harvard Medical School will require a college degree for admission. As the generosity of Colonel Payne has guaranteed Cornell University against any loss from maintaining the medical school during the first ten years, it would seem as if these ten years would have afforded the university a magnificent opportunity to organize it on the highest possible level. Those of us who are ambitious for Cornell to take in every respect a leading place among the universities of the United States cannot see why its two professional schools of law and medicine should voluntarily accept a lower rank than those of Columbia, or the Johns Hopkins, or Harvard. Whatever may be said in defense of making it possible for men and women who have been graduated from a good public high school to take advantage of the opportunities afforded by the other schools of the university, everyone must feel that it is for the advantage of the community as a whole that lawyers and physicians should represent the highest attainable education. If, as we should all admit, there are professions in which prolonged study is of peculiar value, it is a foregone conclusion that the graduates in law and medicine of Cornell University must in time come to rank far below the graduates of Columbia, Harvard, and the Johns Hopkins."

At the meeting of the alumni held in June, 1890, a resolution was passed establishing an alumni bureau, the object of which should be to promote the interests of graduates of the university. It was proposed to establish a central bureau where the names of all students desiring educational or other positions should be preserved, and to which application might be made and information of vacancies in educational and pro-

fessional positions given. By means of this bureau assistance has been freely given to all applicants, and every year a large number of students, upon graduation, and older alumni, have received positions through its instrumentality. A fuller co-operation on the part of the alumni is alone needed to enable this bureau to exert a beneficent and extended influence in behalf of graduates of the university. As it is, its influence has been widely felt. The Alumni Bureau was later entrusted to the registrar of the university.

The unsatisfactory character of a mere routine administration of this important office was felt, and in the year 1903 a Board of Recommendations was established by the university, the purposes of which are to aid Cornell graduates to secure positions, to systematize and reduce the work of the individual professor in recommendation, and to give unity, force, and dignity to the university recommendations. A representative from every department of study embraced in the College of Arts and Sciences was appointed, which constituted the general committee. An executive committee of three is appointed annually by the president of the university. The committee registers the applications of students for positions and conducts the correspondence with educational boards.

At the meeting of the alumni June 19, 1889, the question of what constituted an alumnus of the university was raised. The trustees had adopted at their meeting on October 24, 1888, in accordance with a section of the charter of the university, which required them to interpret who shall constitute the alumni of the university and be entitled to vote for alumni trustees, a resolution that all graduates in any department with the first degree, and all persons who have been admitted to any degree higher than the first in the university, shall be alumni, and as such entitled to vote for alumni

trustees. The executive committee of the Alumni Association issued a circular asking for an expression of the views of the alumni, whether they favored the ordinance as it stood, or an appeal to the trustees to raise immediately the standard of admission and lengthen the course of instruction in the Law School until it should be equivalent to a four-years' course. In reply, answers were received from 660 graduates; of these 594 favored an appeal to the trustees to raise the standard of admission and lengthen the course of instruction in the Law School, 44 favored the ordinance as it stood, and 26 held conflicting views as to the course to be pursued. At the meeting in the following year, no favorable action having been taken by the trustees, the subject of the resolution was taken up and referred to the representatives of the alumni in the Board of Trustees to advocate and support the above views.

At the meeting of the alumni in 1888 a resolution was offered in favor of raising funds to erect an alumni hall. This committee reported at the meeting on June 18, 1890, in favor of organizing a Cornell Central Club, the object of which should be to raise the sum of \$50,000 for an alumni hall to be erected on the university grounds. Ex-President White had offered to add \$10,000 to the above sum, in case the amount should be raised within five or six years. It was proposed to erect a building, the main hall of which should be utilized for the great gatherings and entertainments of the club, and as a repository for memorials of former professors and students of the university.

For many years the erection of an alumni hall by the alumni has been earnestly discussed, and considerable contributions received for this purpose. The object of the alumni hall, beyond furnishing a room for the annual gatherings of the alumni, has received mani-

fold discussion, and a great variety of views has been expressed.

The report of a committee, to whom this matter was referred by the alumni on June 16, 1897, was presented by the Hon. John D. Warner, of the class of 1872, June 15, 1898.

It recommended that the committee be authorized to notify students in architecture in the university, who had studied there for a period of not less than two years, to submit competitive designs for a building which should serve the general purpose of a club for students and others connected with the university, in a manner which should augment the university social life, without undertaking to provide for a commons or for dormitory accommodations, except a limited number of chambers for visiting alumni or other appropriate guests. The site proposed was on the southwest corner of the junction of Central and South avenues. The building was to be planned to face Central Avenue, and to have its entrance on the east side, and to be of stone or brick, and fireproof throughout. The limit of expense was placed at \$150,000. The specifications called for a kitchen, grillroom, bowling alleys, laundry, bicycle room, boiler room, refrigerator room, steward's storeroom, rooms for coal, etc., in the basement. On the main floor there was to be a vestibule, coat rooms, administrative offices, small dining-room, pantry, and an auditorium containing 6,000 square feet of surface. It should also contain a general lounging-room with ample fireplaces, writing and reading room, billiard room, two committee rooms, room for the glee club, twenty chambers, ten with bathrooms attached, besides accommodations for fifteen servants. Lavatories of commensurate size were to be placed conveniently upon each floor, and a ladies' toilet room on each of the two main floors. Drawings for this build-

ing were to be referred to a jury of eminent architects, Messrs. Walter Cope of Philadelphia, Charles A. Rich of New York, and R. D. Andrews of Boston. Suitable prizes were provided for the best three sets of drawings. At the alumni meeting of the following year, held on June 21, 1899, a report of the result of a provisional competition among Cornell architects was presented, and five sets of plans were chosen as the best submitted, namely, those of S. B. Davis of 1896, W. R. Delahanty of 1895, B. S. Hubbell of 1893, W. W. Judell of 1900, and H. W. Wilkinson of 1890. The committee also reported that at their request the trustees of the university had allotted, as a site for the proposed alumni hall, the "Prentiss Corner," under the following resolution: "That the site of the Sage Cottage and the ground immediately south thereof be, and the same hereby is, set apart for the erection thereon of the proposed alumni hall and clubhouse, and that the said site be preserved for that purpose for three years from June, 1899, in accordance with the terms of the resolution of the Board of Trustees adopted October 29, 1896." The committee was directed to institute a final competition on terms sufficiently liberal to admit all Cornell architects, and submit premiated plan or plans with recommendation as to action. At a meeting of the associate alumni, held on June 19, 1901, the committee on the alumni hall reported that in the preliminary competitions open to Cornell architects ten had qualified for the final competition. The jury recommended as first in merit the plan of Wilkinson and Magonigle; as second in merit, to receive an honorarium of \$250, that of Joannes and Ackerman; and as the third in merit, to receive an honorarium of \$150, that of Green and Wicks.

It is apparent that the plan of the committee as presented embodies in part the largest and most vital



CORNELL ALUMNI HALL

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needs of the university. The university has been without a center of academic life. The students have gathered for their daily work, but beyond the facilities furnished by the university library and the reading rooms in the various colleges, the gloomy and unattractive facilities offered by laboratories and shops, there is no general center of life in the student world. The university has naturally suffered on this account. The segregation of students in chapter houses has naturally been an obstacle to a united university life. The great need of the university is a student clubhouse, with library, committee rooms, lounging rooms, dining-hall, and smaller rooms for private dinners, the training table, and halls sufficiently large for minor student gatherings. A clubhouse conducted upon something of the order and refinement of a city club, with reading rooms, post office, and rooms for billiards, cards, and games, would reconstitute the university life. Such a building, with bedrooms and sitting-rooms, held for the use of the alumni upon their visits to Ithaca, would afford a unifying and refining influence of priceless value. It should also furnish meals, like the Harvard Memorial Hall, to students who spend the entire day in work upon the hill, in libraries, and in laboratories.

A fellows' hall for the use of unmarried professors, instructors, and graduate students would contribute more to give an *esprit du corps* to the members of the teaching staff, who are now without homes, than any other building. Such an edifice would reproduce in part the accommodations of the English colleges with their halls of residence. It would benefit the graduate alumni connected with the university and those resident in the city.

About sixty thousand dollars have been raised for an alumni hall. A delay in completing the amount necessary has been due to the appeals for the athletic field.

CHAPTER XX

THE CAMPUS AND UNIVERSITY BUILDINGS

THE university campus was originally bounded on the north by the Fall Creek road and on the south by President's Avenue. The square, lying between this avenue and Cascadilla Creek, and between East and West avenues, containing fifty acres, forming now the most beautiful part of the university grounds, and having upon it Boardman Hall, the Chapel, the Sage College, the armory, the society halls, and the professors' cottages along Central Avenue, was obtained by purchase in 1872. By later purchases the university land was extended on the north to Fall Creek, and on the south across Cascadilla Creek. Mr. Cornell wisely saw the necessity of extending the university limits beyond the space included between the Fall Creek and Cascadilla Gorge. He recognized that the land to the south should be acquired for university purposes. As early as November 28, 1866, he wrote that the Giles Place, embracing the region between Cascadilla Ravine and Dryden Road, now occupied by the extension of Huestis Street, ought to belong to the university.

“Cascadilla Place will make a fine location, and the building will be well adapted for a female department of the university. If Giles and Curran would name a fair price for their property to the university, and the stockholders of Cascadilla Place would donate their stock when paid up to the university on condition that the university would take the property, complete the building, and eventually establish a female department

there, but in the first instance use the buildings in connection with other temporary accommodations to commence the studies in the university—then I should be in favor of the university taking and finishing the building and would recommend the trustees to do so.

“ The first step, however, must be taken by the stockholders of Cascadilla Place. I should rather see that institution finished as planned and made a success, as I know it would be, but as faint heart never won fair ladies, and weak knees never omit to tremble when there is an opportunity to do so, it may be that the citizens of Ithaca will not subscribe the stock requisite to carry forward that work; and, better than have the work stop and the walls stared at as a laughing stock of folly and irresolution, I say donate it to the Cornell University in behalf of the ladies of Ithaca for the interest of female education. I will pay up my stock and donations, and give it for the above noble object, if others decide to do the same.”

The original gift embraced two hundred and seven acres. The university domain now contains about five hundred acres. The university possessed only a right of way over the newly constructed road which now constitutes Central Avenue.

At the second meeting of the Board of Trustees, held in Ithaca on the 5th of September, 1865, a committee on buildings was appointed, which was authorized to select a site for the university. The location chosen was at that time an uneven shelf of the hill which rose to the east of the city. Upon the level ground, where the armory now stands, and on both sides of what is now Central Avenue, on the south, was an extensive orchard, and a second orchard, in the vicinity of a small farmhouse, existed on the northern portion of the grounds, south of the Sibley College. A considerable depression existed between Morrill and McGraw

halls, and also between McGraw and White halls. To the north of White Hall the ground rose abruptly, almost to the height of the present second story. This land constituted the Hon. Ezra Cornell's farm at the opening of the university. From it a view extends following the winding lines of the valley to the southwest, and over the shores and waters of Lake Cayuga for many miles to the north. Westward, across the valley, rises a lofty line of hills covered with orchards and vineyards, beautiful in springtime with showers of blossoms, and at all times exhibiting an endless play of light and shade. Its square fields of forty acres are remnants of the early military survey of the state.

At the meeting of the trustees held March 14, 1866, five hundred thousand dollars were placed at the service of the building committee, a sum equal to Mr. Cornell's entire gift in money, which certainly was not available from the endowment fund nor from the proceeds of the government grant, the use of which was to be "inviolably appropriated to the endowment, support, and maintenance" of the university, and "no portion of which fund nor of the interest thereof was to be applied directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repair of any building or buildings." In the original law of Congress it was enacted that every state, within five years from the date of the passage of the act, should provide for at least one college; and in the charter of the university it was required that within two years provision should be made satisfactory to the Regents in respect to buildings, fixtures, and arrangements. Few universities have had a fairer opportunity to make all their buildings models of an intelligent taste in art. The future of the university was from the first assured. Unfortunately, the architecture of the new university, in its initial and most

important features, was entrusted to a local architect in a neighboring city, unfamiliar with the finest results of collegiate architecture, and apparently unconscious of the new direction of art in the United States. A picturesque grouping of buildings under a skilful landscape gardener was possible, instead of the traditional arrangement of three buildings in a row, where, as in this case, the architectural front differed from the actual. The eminent landscape gardener whose genius has been manifested in the finest work in his department in America, and has been the admiration of foreign visitors in two international exhibitions, Mr. Frederick Law Olmsted, was so impressed with the influence which the national system of colleges should exert upon our entire industrial population and upon our educational life, that he published several papers upon how such institutions might meet, not only practical demands, but those of a genuine and refined art taste. In emphasizing this side of the proposed national scientific schools, he stated: "A similar scheme of education was never before proposed to the mind of man in this country or any other. Why not set ourselves about it like men, and institute such means, and only such means, as are adapted to our ends?" Mr. Olmsted's counsel in the arrangement of the grounds and the location of the buildings was invoked, but as he differed from the traditional views, the old order prevailed, and the opportune moment was lost.

A committee was appointed to report on the buildings to be erected, and two of the committee, in company with an experienced architect, visited some of the most noted collegiate buildings in this and neighboring states; they also held consultations, and corresponded with several gentlemen who were familiar with university architecture. As a result of these investigations, the committee agreed upon the following report, which

was presented at a meeting of the trustees held on March 4, 1866:

“ As regards style and material, that while they should be tasteful, substantial, and architecturally correct, they should be free from extravagance and from all architectural features not having a basis of useful purpose.

“ As to disposition of buildings, that the mistake be avoided of connecting all in a single large and pretentious edifice; but that hazard be diminished and convenience as well as architectural effect increased by erecting separate buildings each for its own specific purpose. It is believed that such buildings can be grouped so as to present an appearance far more impressive than any high structure which it is within our power to build.

“ As to the progress of the work, that however complete the plans which may be adopted, the buildings be erected from time to time to meet the growth of the university, and that only so much be done now as may be demanded by the undoubted wants of the university on beginning its operations.

“ The committee are of the opinion that those buildings required by the university in its full scope are mainly as follows: Dormitories, lecture and recitation rooms, laboratories, library, museum, public hall or chapel, farm buildings, workshops, professors' houses, and probably, eventually, an observatory.

“ As to the first of these classes, the dormitories, the committee generally admit their necessity reluctantly. Experience has shown that better discipline can be maintained without them; that students separated from each other and brought in small groups under the restraints of lodging with quiet families, are generally more easily managed than when brought together in large numbers under a single roof, but the circum-

stances of this case have left the committee no choice. The university property is so remote from the village of Ithaca, and at such a distance above it, that some provision must be made for the lodging of students upon the university grounds. Moreover, in an institution where the experiment is to be fully tried of allowing young men to engage in agricultural and mechanical pursuits in connection with their studies, it seems a necessity that they should be lodged where they can easily pass from one sort of labor to the other.

"They are, moreover, of the opinion that the style of warming by open fireplaces has the advantage of making the students' rooms more attractive, which is one great point gained in college discipline.

"The committee therefore recommend the erection of two dormitories upon this plan for about sixty students, each to be ready at the organizations of departments and classes in the university. The buildings to be so constructed also that, if the institution is ever able to do away with the dormitory system, the students' rooms can be connected into lecture rooms for recitations, lectures, and general college purposes.

"As to lecture and recitation rooms, the committee believe that those necessary for general purposes can best be placed in a central division of each dormitory building. They are thus easy of access, and have the additional advantage of separating the students of one division of a dormitory from those in the other. The mode of doing this will be seen upon examination of the general plan accompanying this report.

"As to size, they should be of such dimensions as to accommodate different classes, ranging from two hundred students down to twenty or thirty.

"As to laboratories, the university will undoubtedly, at an early period, be obliged to erect a separate building on a large scale. Into the department of chem-

istry nearly all the branches of the university converge. It is common to the departments of agriculture, mechanic arts, mining, civil engineering, and general science. The institution must possess one of the largest and best, and, if possible, the largest and best laboratory in the country. It should be constructed under the guidance of the head of the department of chemistry. But for the present, the committee do not recommend any separate laboratory building. It is believed that temporary accommodations can be furnished in the basements of the dormitories, or in some of the lecture rooms, until it be more clearly seen what are to be the demands of the chemical department.

“ As to library, a building is clearly necessary and on a large scale. Without a large and well-selected library the Cornell University can never take any high rank among the institutions of the country, nor can it attract to itself the best men for instructors. With such a library, and with provision enabling it to keep pace with the advance of science, the university has a powerful center of attraction for all men of thought and education who are not tied down to cities, and has the means not only of popularizing knowledge but of increasing it. Eventually there must be a large, thoroughly fitted building for library purposes, but at present it is believed that one building can be made to suffice for the library and for the museum.

“ That the museum is not less necessary than the library will be seen by anyone who considers the scope of the proposed institution. In it must be gathered collections of implements, of grains, of grasses, and of various natural and artificial products bearing upon the department of agriculture. There, too, should be the collection of models and machines bearing upon the department of the mechanic arts. The university must

also have a place for her noble collection in geology, for collections in mineralogy, zoölogy, and botany. Great space will eventually be required for these, but at first they can be accommodated in one building with the library.

“The museum and library building should be a single oblong structure about eighty feet in length by forty feet in breadth (or perhaps one hundred feet by fifty feet). It should be in its interior all thrown into one great room without division walls. It should be surrounded by at least two, and probably three, very broad galleries, arranged on some general plan similar to that adopted by the Historical Society in New York or the Agricultural Museum in Albany. This building the committee recommend to be erected at the same time with the dormitories.

“The library building to be ultimately erected should correspond in size and general appearance and fire-proof character with the museum building.

“The public hall or chapel will also be eventually required. It should have one division,—say a first floor,—to accommodate meetings of the students.

“As to workshops, a building already exists which it is believed can be obtained and which will answer a temporary purpose. The committee recommend that no further plan for such a building be adopted before the plan of instruction in science as applied to industry is more fully developed.

“As to professors’ houses, the committee are agreed that provision must be made upon the grounds for at least four. It is believed that they can be made to return a fair interest upon their expense. It is also believed that in organizing the institution they will prove immediately worth more than their cost. If, in calling professors, we are able to offer neat and comfortable houses not far from the field of labor, much

smaller salaries will often suffice than when these gentlemen are asked to leave comfortable homes, to rent houses from year to year, illy-constructed, inconvenient, and some distance from the institution. The committee are aware of at least one very strong example directly proving this. Such houses should be comfortable and well built, and in style such as to form part of the general plan, and should come in as a feature of the grouping.

“ As to an observatory building, while the committee examined some of the principal buildings in the country, they are not prepared to offer any suggestions at present, but they hope that eventually an observatory will be built which will add greatly to the advance of science.

“ As regards the material to be used in the buildings, the board will remember that a resolution was passed at the last meeting declaring that stone should be used. The committee do not as yet see any reason for differing with the majority of the trustees. In buildings like these, which are to be regarded as public buildings, the seat of probably the greatest educational institution of the greatest commonwealth in the union, it seems appropriate that the material should be of the most noble and the most enduring. The committee are therefore still in favor of using stone, but they ask to be allowed to re-examine the question in regard to economy and in regard to the character of the stone at our command. If so allowed they will, at an early day, make a more thorough examination than they have yet been enabled to do.

“ The committee would recommend that they be empowered to select some competent person at a monthly salary to be agreed upon by the executive committee, to make a survey of so much of the grounds as may be necessary, and to superintend the grading and gen-

eral arrangement of the grounds immediately about the buildings."

It is interesting to note from this report the source of many facts of the earlier buildings; the provision by which the lecture rooms were placed in the center of the dormitories, in order to separate "the students of one division in the dormitories from those in the other"; also, the arrangement of the museums with wide galleries, placed one above the other; the provision for professors' houses for the purpose of establishing an academic community, as a part of the original plan. The necessity of dormitories was reluctantly admitted, owing to the distance of the university from the town.

Owing to the limited time in which all preparations for the accommodation and inauguration of the new university had to be made, measures were at once taken to erect the necessary buildings. At the third meeting of the Board of Trustees, held in Albany, March 4, 1866, a report of the building committee was presented, and it was voted to commence the necessary building or buildings at the earliest day consistent with the interests of the university. The committee was authorized to procure, by purchase or otherwise, any building or buildings or land needed near the proposed location of Cornell University suitable for the purposes and uses of the university. Work seems to have been begun at once, for at the following meeting of the trustees, held in Ithaca, October 21, 1866, a contract for the building under construction was mentioned. In the records of the time we find the architecture of the new building described as "Italian Renaissance." The boldness of this euphemism will be the admiration of future students of art. This building was designed mainly for a dormitory for the accommodation of students, which the city could not at

that time furnish. The dormitory system seems to have been from the first regarded with disapprobation, and only adopted reluctantly, to provide for the needs of the university at its opening. It appears from the records that at this time a building 4 stories high and 165 feet long by 50 feet wide, with a basement, which had been begun in August, was now so far advanced as to insure the immediate roofing of one-third of the building and the probable covering of one-third more, possibly of the whole before winter, thereby enabling the work of finishing the interior to go on, and insure completion for use in the coming summer. It is apparent that a purpose existed at this time to open the university in the fall of 1867. Thus the south university building, later called Morrill Hall, came into being. On February 13, 1867, the authority was given to erect a second building which should be a duplicate of the first, with rooms in the central division for the use of the faculty. This seems to have been the first provision made to meet the most essential feature of a university, a building mainly for lecture rooms, museums, and laboratories. The construction of this building was delayed, for a vote passed November 11, 1869, provided that it be opened as soon as students from the town should be found to fill it.

On the 30th of June, 1868, Mr. John McGraw proposed the erection of a fireproof building suitable for the needs of the university. This building (the present McGraw Hall) was begun soon after, and was designed to accommodate the library, the collections of natural history, and to afford lecture rooms for the departments of geology, anatomy, and physiology. The corner stone of McGraw Hall was laid at 3 P. M., June 30, 1869, with an address by that noble Quaker and friend of the university, Mr. John Stanton Gould. The architecture was said to be "Florentine with a



CORNELL UNIVERSITY IN 1872
The Campus Looking North

French roof." The building was originally designed to contain an audience room which would accommodate 1500 people and would cost \$80,000. The large central hall of this building was frequently spoken of in the early records as the prospective "chapel."

In the fall of 1869 a building to be devoted mainly to the needs of the chemical and physical departments was begun, although there is no record of its early history. This was the original chemical building which stood west of the present building for dairy husbandry. It was intended to be temporary and was of wood, but admirably designed to meet the needs for which it was erected, and it remained standing until within a few years.

At the same time the need of residences for professors was being seriously felt. Most of the students and faculty were accommodated within the gloomy and disagreeable walls of Cascadilla. The city itself at this time contained no more residences than were needed for its own population. On January 24, 1870, the lease of land to professors, which would enable them to build upon the university ground, was authorized. This important action has contributed more than anything else, perhaps, to give the university a unique character by establishing upon its grounds a university colony. It was proposed at this time to erect a residence for Professor Goldwin Smith on the half-lot additional assigned to Professor Fiske and connected with his residence. The erection of the president's house by President White was originally proposed at the time of the offer of Mr. McGraw to erect the hall which bears his name. The first residences for professors upon the university grounds were those of Professors Law and Fiske. The earliest leases to professors of sites upon the campus, made in 1871, provided that in case of the death or resigna-

tion of the owner, the university should purchase the residence at an appraised value, to be determined by judges, one of whom to be appointed by the owner and one by the university. In case of disagreement respecting the value of the property, the two appraisers agreed upon the choice of a third. At the same time, in order that the residences erected upon the campus should be dignified and worthy of the site which they occupied, it was provided that all plans for the same should be submitted to the executive committee for approval. Later, the erection of one or two cottages at a very large cost called the attention of the trustees to the importance of limiting the obligation which the university should be under in the purchase of such houses. At that time, 1881, the resources of the university were limited, and there was a possibility that at any time a large number of cottages might be thrown upon the market so as to tax seriously the university. A new clause was therefore inserted in all leases subsequent to this time, that the university should not be obliged to pay over five thousand dollars for such residences. This limitation was placed in the leases for the protection of the university and not with a view to securing the property of professors at less than the value which such cottages would have for sale to others. This interpretation of the contract was adopted consistently and uniformly for more than twenty years. It is obvious that, under the contract, two cases may arise: one in which the sale of a residence is in the interest and for the convenience of a professor, and the second in which the site of such residence is necessary for the university. In the former case the owner creates the condition of sale, and in the latter the university. It is therefore a fair consideration whether, in all such cases where the issue is created by the university, it should not follow the

precedent established by those who originally drafted the contract and which has been uniformly followed from that date to the present time. President Schurman, in his report of 1892-93, wrote:

"It is an ideal arrangement that enables professors to have homes on the campus. In reach of the urban advantages of the city of Ithaca, they also enjoy the rural delights of one of the most beautiful and romantic situations in the world. It is, besides, something of an offset to the low scale of salaries which the board are not yet in a position to raise (though an advance should be the first charge on an increase in income) that the university gives the professors the free use of the lots, which, at rates for adjoining property, are worth two hundred dollars a year, and also furnishes water without charge. Clearly these perquisites should not be taken away without a rise in salaries."

Of this feature of the university grounds, as originally conceived by President White, and one of Mr. Cornell's favorite thoughts for several years before the university was opened, an alumnus wrote:

"A unique feature of this university has been the academic life, which exists here in a perfection not perhaps otherwise realized in any university in this country. Strangers from abroad and educators are always delightfully impressed by the university atmosphere which exists upon the campus. One of the most delightful features associated with a position in the university faculty is the cordial social relations which have been possible during the last thirty years through the residence of professors in a single community. Every effort should be made to perpetuate this unique and delightful feature.

"Any action which shall tend to unsettle the tenure of property upon the campus will disturb and make

permanently impossible the realization of what should be a distinct feature in the development of the university. All values of the present residences of the professors will be impaired by the dissemination of such views should they suggest a permanent change of attitude in this respect. In the new plans it is clearly desirable that a certain part of the university campus should be set apart for the residences of members of the faculty, and such portion should be as fixed and as inviolable as that part which is provided for dormitories and for the occupation of students.

“ Many of the professors are responsible for buildings and apparatus, and it would be impossible for them to exercise with equal advantage to the university this important function if this feature in university life were abandoned. In the reception of lecturers and guests of the university, and in the entertainment of students, it is desirable in the highest degree that the professors should reside upon the university campus, where it is possible for them to receive and entertain not merely their colleagues, but the members of the student body. For this reason we deprecate any lessening of the tie which binds the professors to the campus.

“ The original plan has been fruitful of the best results, and should be retained even if other proposed features are abandoned. The tenure of possession which the professors occupying residences upon the campus have enjoyed has always been liable to be interrupted at any time, whenever the land which they possess should be needed for university purposes. Such tenure, which may be terminated at a brief notice, is different from that granted to the various fraternities, whose leases contemplate a possession of fifty years, which may be renewed for additional periods of twenty-five years each.

“ Thus, those whose immediate and personal interest is chiefly concerned are subject to an uncertain tenure and to dispossession at any moment. While this has not worked hardships in the past, it militates against the highest development of what seems an essential and most desirable feature in the future development of the university. The members of the faculty should be attracted so far as is practicable to the campus, and among the most delightful memories of students will be the pleasant social relations which students and professors attain through this means.”

President White proposed on June 21, 1871, to erect a president's house for his own occupation, which, upon his resignation, should become the property of the university for the use of the president. The house thus begun was planned by one of the earliest students of the university interested in architecture, Mr. W. H. Miller, who has since been the architect of the Sage Library, the College of Law, and Stimson Hall. The president's house was not completed until the summer of 1873, President White retaining his residence in Syracuse for the first five years after the opening of the university, and occupying rooms in Cascadilla Place during the occasion of his visits to Ithaca.

No provision had yet been made for suitable accommodations for the department of mechanic arts when, in the summer of 1870, the Hon. Hiram Sibley offered to erect a building for that purpose. On the 9th of August a contract was made for its erection. The Sibley building as originally planned was designed to be one story in height with a French roof. Mr. Sibley consented to increase the height of the building by one story on a pledge from President White to expend a sum equal to the cost of the extra story, in apparatus, models, etc., for the departments of civil and mechanical engineering.

Upon the acceptance of the report of the committee appointed to consider the subject of female education in the university, February 13, 1872, a committee was appointed to prepare plans for the Sage College. These were drawn up by Professor Charles Babcock, and the building remains one of the most simple and dignified in architecture, and one of the most satisfactory of all structures on the university grounds. This building was erected during the year 1872-73, and formally opened for the use of students at the opening of the fall term, 1874.

On May 7, 1872, the contract for the erection of the Sage Chapel, in accordance with the offer of the Hon. Henry W. Sage, was authorized, and on the following morning the executive committee went in a body to the grounds of the university and formally selected its present location. The plans originally contemplated a stone chapel, which were afterwards changed to one of brick. The chapel as proposed was designed to accommodate an audience of five hundred. The contract for its erection was made on June 22, 1873.

When the plans for Sage College, the gift of Henry W. Sage, were drawn, in 1872, it was proposed that the large room, since known as the botanical lecture room, should constitute the university chapel. One evening, as Mr. and Mrs. Sage, then residents of Brooklyn, were inspecting the plans, Mrs. Sage inquired: "Is that the only provision in that great university which is made for religious services?" The suggestion led to the erection of Sage Chapel. On the following day Mr. Sage called on President White and said that if the president would select a site for the building, he, Mr. Sage, would erect a chapel for the university.

The original chapel was built in 1873-74. It was a red brick structure of the pointed or Gothic style, and consisted of a nave extending east and west, seventy-

two feet in length by thirty-two feet in width inside, with north and south porches, and a side chapel or south transept thirty-six feet in length by twenty feet in width, projecting southward from the east end. A small tower ten feet square at the base rose in the re-entrant angle between the nave and the side chapel. This tower contained the organ, and was surmounted by a light open belfry. The nave contained four hundred sittings, the side chapel one hundred. The latter, separated from the main chapel by a movable screen, was originally intended for a daily morning service, but was never used for that purpose. For many years it was used by the congregation of St. Paul's Episcopal Church, an organization of campus families, of which the Rev. Professor Charles Babcock was the rector.

The pulpit stood at the east end of the nave. The pews were of black walnut. At the west end of the nave was the beautiful Apostles' window, which is still to be seen there, while above the pulpit, after Mrs. Sage's death, in 1885, her sons erected the memorial window described on a later page.

The chapel was designed by Professor Babcock, head of the department of architecture. It was formally dedicated on June 13, 1875, when the Rev. Phillips Brooks, then rector of Trinity Church, Boston, preached a memorable sermon from the text, "What I tell you in darkness, that speak ye in light" (Matthew x, 27), and consecrated Sage Chapel to the love of Truth and the love of Man.

The original chapel remained substantially unchanged for twenty-four years. In this time the number of students increased from 496 to 1835. Twice in the year 1896-97 the services had to be transferred to the armory, and in each case the audience was three times as large as the chapel would hold. The enlargement of the building, therefore, became imperative.

These alterations were made in 1898, again under the direction of Professor Babcock. The east half of the nave, the south transept, and the tower were all removed, and in their places were added two adjacent transepts, covering a total space of sixty-six by sixty-four feet, unobstructed save by two ten-inch iron columns. The seating capacity was thus increased to eight hundred. In each of the four new gables, two on the north and two on the south side, was placed a beautiful rose window, ten feet in diameter, with stone tracery, the stained glass being of the Byzantine School. Four new porches were built. The roof frames were of open timber construction, in Georgia pine, the arched trusses springing from corbels on the walls and from the caps of the iron columns. The enlarged organ was placed at the west end of the nave. New oak pews were provided, finished in the natural color of the wood. The walls were painted cream yellow; beyond this there was no attempt to decorate the main chapel.

The memorial apse at this time erected at the east end of the nave will be described in detail later.

The pulpit was placed at the right of the apse, or in front of the north jamb of the stone arch opening into the apse.

In 1903-04 the chapel was again enlarged and elaborately decorated through the munificence of Mr. William H. Sage of Albany, a son of Henry W. Sage, and for many years a trustee of the university.

The architectural alterations now made, again designed by Professor Babcock, were less sweeping in character than those of 1898, but still of considerable importance. The north wall of the east transept has been taken down and the transept has been extended to the northward, giving an additional floor space thirty-two feet square. This, with a projection of the



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platform of eight feet into the main body of the chapel, gives a space forty feet in length by thirty-two feet in width for the organ, a choir of one hundred singers, and an instrumental orchestra of twelve pieces. The organ has been transferred from the west end of the nave to the north end of the newly extended transept and rebuilt without change. The front platform is two and one-half feet above, and the organ three and one-half feet above, the main floor.

The platform at the west end of the chapel, before used as a choir loft, has been removed, and the original flooring has been restored, thus regaining a space sixteen by thirty-two feet for pews.

The solid oak doors opening into the memorial chapel were replaced by wrought iron doors, gilded, the panels of which are of plate glass. This affords a partial view of the interior of the memorial chapel, even when the doors are closed. Likewise the old pine doors at the entrances were replaced by new carved oak doors stained a dark brown, and the oak wainscot has been darkened.

The building is now lighted by six massive brass coronas or electroliers.

Twelve memorial tablets on the walls recall the memory of the founder and of university trustees and professors.

The scheme for the interior decoration of the main chapel, nave, and addition was designed and executed by Messrs. Cottier & Company of New York. The porches and aisles have been laid with terraza, a mottled surface of small pieces of white and yellow marble in cement, with Greek fret border in white, yellow, green, and black, all beaten down, rolled, rubbed, and polished. In the open space, eleven by thirty-four feet, in front of the apse, a panel of mosaic was placed, in the middle of which is a large Greek

cross with crowns in the center. The ornamental scheme of this panel shows Truth, as represented by the True Vine, emanating on the one side from the center of the pulpit and on the other side from its own roots, as growing from its own inspiration; the inlaid inscription reads, "I am the vine; ye are the branches."

New pew ends were added, and the pews themselves have been stained a dark brown color. They were also rearranged to conform to the mosaic work of the aisles.

The walls throughout, above the wainscot, were covered with canvas and colored up to the intersection with the roof. The lower portion of the walls, from the wainscot up to the line of windows, forms a band of a dark red or maroon color; above that it is a salmon color with intersecting lines to imitate stone or ashlar work. On the cornice boards of the side walls, beginning at the south jamb of the stone arch which leads into the apse, continuing across the gables, and extending around the chapel, on a striped red background, is the summary of the Law as taught by Jesus:

"Jesus said unto him, Thou shalt love the Lord thy God with all thy heart and with all thy soul and with all thy mind. This is the first and great commandment. And the second is like unto it. Thou shalt love thy neighbor as thyself. On these two commandments hang all the Law and the Prophets." [Matthew xxii, 37-40.]

Above the cornice boards the gable walls of both the main chapel and the transepts have been kept a pale yellow color of a greenish hue, and upon this background have been arranged gilded stars and wavy lines of pale blue.

The jambs and arches of the windows are ornamented with leaf-work on a blue ground, which greatly enhances the effect of the stained glass work.

The timbers of the roof are painted a dull brown, relieved by bands, frets, zigzags, and chevrons in red and white. The ground of the sloping panels is of the same brown hue. In the center of each panel is an ecclesiastical emblem painted on a canvas of quatrefoil shape: the temple, the ship on the wave, and the ship and pennant, symbols of the Church; the anchor, symbol of hope and patience; the lamp, of piety and wisdom; the lamb and pennant, of the Redeemer; the cross, of redemption; the interwoven triangles, of the Trinity; the lion, of the tribe of Judah; the open book with a hand pointing to the beatitudes, symbol of the gospels; the sword and palm, of martyrdom and victory; the chalice, of faith; the flaming heart, of fervent piety and love; the standard, the wreath, and the crown, of victory over evil; the sun, stars, and crescent moon, of the luminous nebula which emanates from and surrounds the Divine Essence; the burning bush, of the religious fervor of the martyrs; the I. H. S., which originally were the first three letters of the name Jesus in Greek, but which in Renaissance times were said to stand for Iesus Hominum Salvator, "Jesus, Saviour of men."

The background throughout is covered with a spreading pattern, the *motif* of which is the olive vine, symbol of fertility, with branches, leaves, and fruit. The level panels at the top, which form a double cross, have a blue ground in which are set gilded sunbursts and stars; while in the centers of these are found the Greek cross, the encircled crown, the Greek letters XP, which began the word Christos, and the Alpha and Omega, which to the early mystic signified the perfection of Christ.

But the various emblems are not alone significant; the colors themselves speak in a language not hard to understand. The white symbolizes light, religion,

purity, innocence, faith, joy, and life; the black and white together, purity of life, humiliation; the red symbolizes fire, heat, the creative power, the fervent Divine love; the red and black together, purgatory and the realm of Satan; the green, hope of victory and immortality; the gray, mourning, humility, and innocence accused; the blue, the firmament, heaven, truth, constancy; the gold, the sun, the goodness of God.

These decorations have transformed a tame and uninteresting interior into a place where the eye may delight in restful color and where the soul unconsciously learns to worship. The too warmly colored woodwork of the roof and the monotonous yellow of the walls of the chapel of 1898 were replaced by a harmonious blending of glorious though subdued colors and by a simple decorative scheme, all the parts of which are in harmony. This has been done by means of the deep tones of the lower woodwork and the pews and the several low tones of red in the walls, notes of the same color being carried through the darkened woodwork of the roof and beams to be repeated once more in the double cross of level panels in the roof. The foliage of the roof work, applied on the brownish background, lightens to some extent the coarse construction and is made interesting by the emblems on the panels. The discriminate use of gold in the roof, on the walls, and in the inscription which extends around the chapel helps to bring the whole decorative scheme together. The work on the walls and the dividing bands of decorative scroll-work and frets are intended to lighten up the otherwise monotonous bareness of the spaces between the windows.

Though critics may differ as to the effectiveness of certain details of this decoration, the whole scheme must be pronounced rich in its suggestiveness of the centuries of Christian tradition, harmonious in its

coloring, and entirely appropriate in design and execution.

At the east end of the nave the university erected, in 1898, a semi octagonal apse, to receive the mortal remains of Mr. and Mrs. Henry W. Sage, and to stand as a memorial to "the second founder of the university." The apse is thirty one feet wide by sixteen feet deep, opening into the main building by a massive stone arch. The interior walls, from the window-sills up, are also of gray stone. The oaken ribs of the ceiling are carried on stone columns with carved capitals, supported by stone corbels. The decoration of the apse sets forth in eloquent symbolism the ideas for which Mr. Sage firmly stood. In the lower processional is personified the work of the university—the education of man and woman. Co-education, in the movement for which Cornell University was a pioneer, is represented by the young man and the young woman who stand at the north and the south end respectively. Each is clad in the simplest garb. The firm, strong lines of the woman's figure, not less than the sturdy limbs and well-knit sinews of the man, suggest the athlete. Yet the training of the body has but kept pace with that of the mind. Each holds in the hands a scroll of knowledge; the handsome countenance of each is lighted with that high ambition which thrills only the followers of the intellectual life. Next to each is a group of three figures: next to the man, the Sciences; next to the woman, the Arts. The central figure of the latter group, Art, bears in one hand a model of the Parthenon, supreme achievement of the kindred arts of architecture, sculpture, and painting, in which Old Greece led the world. Her right hand clasps the left hand of Literature, who carries a book in her other hand and whose eyes are turned to the earth in thought. On the right of Art is Music, who

bears a lyre, and who gazes into the distance as if to catch the last echoes of some dying harmony. On the ground at the side of Music are a palette and the tools of the sculptor, while at the side of Literature is a pile of scrolls and books.

Of the group representing the sciences the crowned figure in the middle is Astronomy. She bears in her hands a planisphere, representing the worlds beyond ours. At her right stands Biology, personifying the study of life. In her hand is a bird's nest filled with eggs, while a chaplet decks her head. Beside her upon the ground are other objects suggestive of the biological sciences—a skull, a starfish, and a flowering plant. The third figure, Physics, represents the study of inanimate matter. She bears in one hand an alembic, in the other a spray of a medicinal herb. On the ground by her side rest a prism, a primitive machine for making electricity, and a Leyden jar.

The leader of each procession stands next to the sitting figure in the center. The Arts are led by the cowed figure of Truth, who bears aloft in one hand a globe and in the other a pair of compasses. The Sciences are led by Beauty, who bears in one hand the Venus de Milo, type of man's highest art, and in the other a rose, the most perfect work of nature. Thus is clearly declared the intimate relationship of Truth and Beauty.

In the center, on a canopied throne, sits Philosophy, or Man Thinking. A child on either side holds the end of the scroll of Learning, both science and art, which he rolls or unrolls for the perusal of the learned man. The august figure thus enthroned unites the dual idea and proves the unity of all learning.

All the figures of the processional are of life size. The space occupied is forty-two feet in length and seven in height. The lower part of the background

is a hedge of foliage broken by sprays of flowers, while the heads of the figures stand out in an atmosphere of gold, "under a Vallombrosa of as yet unfallen leaves, the whole suggesting the richness of culture and associations of the Old in harmony with the energy and the earnestness of the New World."

Above this is the beautiful Gothic memorial window dedicated to Mrs. Henry W. Sage by her sons, which likewise adorned the old chapel, being then placed directly above the pulpit. In the middle of the three rows of panels are depicted the Christian graces of Temperantia, Veritas, Caritas, and Honestia. Above these are represented the four parables of The Lost Piece of Silver, The Good Samaritan, The Prodigal Son, The Lost Sheep, and in the lower row beneath are depicted the parables of The Sower, The Pearl of Great Price, The Pharisee and the Publican, and The Hidden Treasure. On the right of this large window is a smaller double window containing the figures of Jesus the Light of the World and St. John the Evangelist, and inscribed to the memory of Mrs. William H. Sage. On the left a corresponding window, containing the figures of Jesus the Good Shepherd and St. John the Baptist, bears an inscription in memory of DeWitt Linn Sage, son of William H. Sage.

The imagery of the vaulted ceiling is beautiful and suggestive. In the space to the southeast are the warrior St. Michael, his hand resting upon his drawn sword, symbol of the Church Militant, and St. Gabriel, who bears in his hands a bunch of lilies, significant of the Church Triumphant. On the opposite side are the archangels Uriel and Raphael, crowned with halos. They hold in their hands the chalice, for religion, and the pilgrim's staff, for the work of the world.

In the central space above, directly over the tombs, the smaller, as if more distant, figures of four angels

kneel in adoration beneath an ornamented cross, symbol of the Eternal Mystery of God's love revealed in man, which stands emblazoned at the zenith. Cornell University thus gives permanent recognition to the supremacy of religion, the goal of Science and Art and Philosophy, the highest realization of the ultimate Truth and Beauty in human life.

The mosaic work was designed by Mr. Charles Rolinson Lamb, and executed by Messrs. J. and R. Lamb of New York, under his supervision. The paintings and studies of groups in the processional were made by Mrs. Charles R. Lamb; the four single figures were drawn by Mr. Chester Loomis, of the class of '72; and the figures in the ceiling were the work of Mr. Frederick Stymetz Lamb.

The floor below, together with a seat running along the base, is of greenish-black marble. In the floor, above the graves of Mr. and Mrs. Sage, are two raised recumbent stones of Carrara marble. On that of Mr. Sage is a wreath of oak leaves, symbol of courage and strength; while on Mrs. Sage's stone is a similar wreath of ivy, symbol of affection and remembrance.

A new pulpit presented by the family of the late Dean Sage, founder of the chapel preachingship, is as a memorial to him. It is built entirely of Caen stone, and is of early Gothic design. It is octagonal in form, having six sides complete. Each side forms a panel with a trefoil arch, diapered, and with upper tracery supported by two columns with moulded bases and carved and foliated capitals. The angles are also octagonal, supporting a carved cornice carried upon a moulded corbel, raised upon carved capitals with five complete columns and moulded bases, the whole being raised upon two octagonal plinth stones, on which is this inscription:

"In memory of Dean Sage, 1841-1902, Founder of the Preachership in this Chapel."

The original organ, which was of two manuals and contained nineteen speaking stops, was presented to the university by Mr. William H. Sage. In 1898 this was enlarged and now contains three manuals and thirty-five speaking stops.

The Memorial Chapel was erected in 1883-84 by the university and the estate of Mrs. Jennie McGraw Fiske, in memory of Ezra Cornell, John McGraw, and Jennie McGraw Fiske, his daughter, whose remains are interred in the crypt beneath. The tablet in the north wall outside was unveiled on Commencement Day, 1883, by Governor Cleveland. In style the chapel is of the middle French Pointed School. The ridge of the slate roof is surmounted by an iron cresting. The chapel measures inside twenty feet in width by thirty-two feet in length. The inside walls up to the windowsills are of Ohio stone. Above this there extends around the chapel a leaf-work string-course of terra cotta. The remainder of the interior walls is of yellow brick. The ceiling is a ribbed vault, the ribs being of Ohio stone, the panels of Caen stone. The ribs are supported by columns of red marble, with ornamented capitals of Ohio stone. The floor is of encaustic tiles.

Directly beneath the north window is a recumbent figure of Ezra Cornell in white marble, of heroic size, by the late William W. Story of Rome. Near the entrance, on the west side of the room, is a smaller recumbent figure of Mrs. Andrew D. White, also of white marble, by Moses Ezekiel of Rome.

Five triple windows adorn the walls of the Memorial Chapel. The window of the north wall contains the figures of John Harvard, 1638, founder of Harvard University; William of Wykeham, 1379, bishop of Winchester, and founder of St. Mary's College, Win-

chester, and of New College, Oxford; and Ezra Cornell, 1865; accompanied respectively by the seals of Harvard University, New College, and Cornell University. This window was erected by the trustees in 1883 to the memory of Ezra Cornell.

The north window of the west wall contains the figures of Elihu Yale, 1718, who gave his books for the founding of the college at New Haven, which received his name; Sir Thomas Bodley, 1598, founder of the Bodleian Library of Oxford University; and John McGraw, of Ithaca, 1871, a trustee of Cornell, who gave to the university the former home of the library, McGraw Hall. This window was likewise erected in 1883 to the memory of Mr. McGraw.

In the north window of the east wall are the figures of Jeanne de Navarre, 1304, bearing a small model of the Collège de Navarre, which she founded; Jane McGraw Fiske, 1881; and Margaret Beaufort, Countess of Richmond, 1509, founder of the Lady Margaret divinity professorships of Oxford and Cambridge and of St. John's College, Cambridge. This window was likewise erected in 1883 in memory of Mrs. Fiske, whose generosity in bequeathing a large sum for the university library the trustees thus commemorated.

South of this is a window erected in 1903 by ex-President Andrew D. White and containing the figures of Archbishop Fénelon, Philip Melancthon, and Thomas Arnold of Rugby, typical scholars and educators of France, Germany, and England.

Above the recumbent figure of Mrs. White one sees the faces of St. Clara, St. Mary, and St. Lucia.

On the walls are five memorial tablets in honor of Mrs. Cornell, of Hon. George W. Schuyler, Hon. Erastus Brooks, and Hiram Sibley, former trustees, and of Louis Agassiz, a non-resident professor in the university. The tablet to Mr. Sibley is surmounted

by an admirable bronze bust, the work of Mr. Herman A. MacNiel, a former instructor in Sibley College.

Besides the memorial windows of the apse and the Memorial Chapel, described above, the main chapel contains several others. In the beautiful windows in the south end of the west transept are the figures of St. Elizabeth of Hungary, her mantle filled with the roses into which her provisions for the poor have been miraculously transformed, and of Florence Nightingale holding a cup of water to the parched lips of a sick man. The former bears this inscription:

"In affectionate memory of Margaret Hicks Volkmann of the class of 1878 this window is placed by her classmates and friends, 1858-1883."

The latter window is thus inscribed:

"To the memory of Mary Bartlett Hill, 1868-1887, this window is erected by her classmates and fellow-students."

Near this, in the west wall of the transept, are two windows containing the figures of St. Vincent de Paul with a child on his left arm and leading a child with his hand, and John Howard in the act of speaking words of hope and comfort to a poor prisoner. Beneath these two windows is this inscription:

"In memory of Edward Scribner Nevius, a student of this university, who lost his life in the effort to rescue a stranger from drowning. He was born January 9, 1869, and died December 12, 1888. His fellow students in the College of Civil Engineering, remembering his noble life and heroic death, erect this memorial. 'Whosoever shall lose his life shall preserve it.' [Luke xvii, 33.] 'Greater love hath no man than this, that a man lay down his life for his friends.' [John xv, 13]."

In the south wall of the original nave are three windows; in the middle is the figure of Jesus of Nazareth

blessing little children and holding a child on his left arm, while in the window on either side are angels making music with flute and harp, violin and lute and voice, and rejoicing at the Divine Goodness thus come down to men. Beneath the three windows is this inscription:

“ In memory of Andrew Danforth White, son of Andrew Dickson and Mary Amanda White, born at New York, April 21, 1874, baptised in the adjacent chapel, October 11, 1874, died at Stuttgart, Germany, December 7, 1877.”

Opposite this, in the north wall, another triple window contains the figures of three groups of beautiful women engaged in teaching little children. The central figure is a likeness of the lady whom the window commemorates and who was herself a successful and distinguished teacher. Beneath may be read this inscription:

“ Beati misericordes quoniam ipsi misericordiam consequuntur. This window is erected in affectionate memory of Abigail Disbrow, beloved wife of Charles Kendall Adams, born at Rochester, December 30, 1828, entered into rest July 5, 1889.”

A beautiful window in the north end of the west transept containing the figure of History, a venerable man with a scroll in his hand, is inscribed: “ In loving memory of Moses Coit Tyler.”

A small canopy on the west side of the Memorial Chapel contains a terra cotta statue of Generosity, a woman bearing in her hand a small model of a building. In a similar position on the east side is the venerable figure of Wisdom, sculptured in English Portland stone.

In the north end of the east transept are five niches for statuary. These will ultimately be filled with the following statues, the order proceeding from west to

east: St. Luke, St. Mark, Christ, St. Matthew, St. John. In the niche around the corner, on the east side, will be placed a statue of Guido Aretino, or d'Arezzo (995-1050), the Italian monk who invented the monochord, introduced the four-line staff for writing music with square notes, and is supposed to have originated the modern *do re mi* system of musical notation.

Over the door in the porch leading into the choir loft is the beautiful terra cotta head of an angel, representing Worship, after the school of Della Robbia. This is the gift of Professor Babcock.

On the lawn between this porch and the Memorial Chapel is an old Venetian well-head, quaintly carved, and having inscribed upon it the motto of Venice: "Pax tibi, Marce, evangelista meus." It was placed there in 1903 by ex-President White.

The terra cotta relief of Christ the Preacher, which was donated by Professor Babcock, and which in the chapel of 1898 was placed over the inner door of the north porch, has been placed in the head of the outer door of the east porch on the south side.

The preachership was endowed in 1873 by the late Dean Sage of Albany, son of Henry W. Sage, a fact recorded on the base of the memorial pulpit. Early in the present year the endowment was augmented by a generous gift from Mrs. Dean Sage.

Provision was made in the summer of 1874 for laying out the grounds of the Sage College by a skilful landscape gardener, and about the same time the wooden bridge across Cascadilla was replaced by the present structure of iron.

At the meeting of the trustees on June 16, 1880, the Hon. Henry W. Sage offered to erect at his own expense a conservatory for the botanical department at a cost not to exceed \$15,000.

On September 3, 1880, the erection of a physical laboratory was authorized, and it was directed that plans and estimates for it should be prepared at once, and on December 18, 1880, an appropriation was made to erect and equip the same.

The erection of an armory was authorized April 29, 1882, and a new building for the departments of chemistry and physics on June 9 of the same year.

On June 14, 1883, the erection of a memorial chapel, to serve as a mausoleum for the benefactors and officers of the university, was ordered.

In the summer of 1887 Mr. Alfred S. Barnes offered to give \$45,000, in addition to the amount already subscribed by the members of the Christian Association, to erect a building to be used for the purposes of the association. The plans of this building were authorized September 27, 1887, and the construction was immediately entered upon, the building being formally opened for public use at Commencement, 1888.

The erection of a building for the department of civil engineering was ordered by the trustees at their meeting October 26, 1887. On June 20, 1888, it was provided that this building should be made of stone, in order to correspond with the other buildings of the quadrangle. On June 19, 1889, the name Lincoln Hall was bestowed upon it in honor of President Lincoln, by whose approval the act of Congress, donating public lands for agricultural and mechanical education, became a law. Work upon the same was begun in April, 1888.

On September 19, 1888, the Hon. Henry W. Sage, feeling deeply the immediate need of a library building while litigation regarding the realization of Mrs. Fiske's will was still pending, proposed to advance to the university the necessary funds for the erection of the building. By a letter July 15, 1889, Mr. Sage pro-



BARNES HALL.

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posed that this library building should be a free gift, if by the decision of the United States Supreme Court the bequest of Jennie McGraw should fail.

The erection of a new chemical laboratory was ordered at the meeting of the Board of Trustees, October 24, 1888, the plans for which as prepared by Professor Osborne were formally adopted, and a site chosen. The erection of the building was begun in July, 1889.

On February 18, 1891, an appropriation was made for the erection of a law-school building, plans for which were, on April 25, 1891, accepted and the contract was made on September 21, 1891.

On March 13, 1883, Mr. Hiram Sibley of Rochester presented \$50,000 to the university to be spent in the erection of additions to the present buildings of Sibley College to provide additional accommodations for its increased numbers.

The plans for the development of Sibley College contemplated the erection of a lofty central tower (later changed to a dome), which should unite the separate wings and give dignity to the college. Mr. Hiram W. Sibley added to his own precious benevolence, and to that of his father, by the erection of this central structure. The erection of this building was begun in 1900, and it was completed ready for occupancy in the summer of 1902. The basement contains a large workshop, the entire first floor a museum, the second floor a large auditorium, with a gallery and a seating capacity of nearly one thousand.

The attention of the trustees was early directed to the acquisition of collections of natural history and of art. One of the first collections obtained before the opening of the university was the Jewett collection in paleontology and geology, which was purchased by Mr. Cornell at a cost of ten thousand

dollars and presented to the university. This collection, which had been made by a scientist in Albany, was regarded at the time as extremely complete. Soon after the charter of the university, the legislature passed an act giving to the university a collection of duplicates in the same department from the state museum in Albany. A larger and more important acquisition was that of the Newcomb collection of shells, which was purchased by the trustees in February, 1868. Dr. Newcomb had spent many years in the Sandwich Islands and in Central America, in which he had made an extensive, and almost unequaled, collection of shells illustrating the conchology of those regions. Many of these shells were of the highest value, and some were absolutely unique; the only collections at the time which could be compared with it was the type collection made by Professor Adams of Amherst, and a similar collection at Yale. The university also authorized the purchase of the mineralogical cabinet of Professor Benjamin Silliman, Jr., of Yale College. Smaller, but valuable, additions were made, among others a collection of four hundred birds, presented by Greene Smith, Esq., the son of Gerrit Smith. Valuable gifts of books were also received, which are mentioned in connection with the library. The Museum of Archæology is a recent but most valuable addition to classical study and to the history of art. This beautiful collection is the gift of the Hon. Henry W. Sage. When the library was moved from the McGraw building, the rooms which it had occupied were devoted to a museum of archæology. This was fitted up for its purpose during the year 1893, and it was formally dedicated in February, 1894. President White had early insisted that a museum of casts would be one of the most valuable acquisitions for the study of the history of art which could be made

in this country. The acquisition of original works of art was impossible, but in place of them the exact models, almost equally valuable for purposes of study, could be obtained. Mr. Henry W. Sage, whose large interest in the development of the university was not confined to any one department, made this beautiful gift to the study of the humanities.

The museum is an outgrowth of the system of instruction followed in the arts course and of the needs of graduate work in the classical departments at Cornell. The leading ideal in its formation is to furnish the best illustration of the development of antique sculpture. It therefore consists principally of a collection of full-size plaster casts, numbering nearly five hundred, of notable examples of Greek and Roman bronzes and marbles. These have been furnished or made to order, for the most part, under the direction of the foreign museums possessing the originals. Some specimens of Egyptian, Chaldean, Assyrian, Persian, and Etruscan sculpture have been added for purposes of comparison. The principal groups, distributed in eight sections over five thousand three hundred square feet of floor area, illustrate Oriental and early Greek sculpture, classical mythology, Greek athletic statuary, architectural sculpture, the school of Praxiteles, later Greek, Pompeian, and Græco-Roman sculpture. No attempt has been made to illustrate Christian sculpture.

As a museum of classical sculpture, the collection is actually excelled by no other university museum in the United States, and among other foundations only by the Museum of Fine Arts of Boston. The total cost of the collection and equipment is about twenty thousand dollars.

The Infirmary

Upon the death of the Hon. Henry W. Sage, president of the Board of Trustees, his sons, Messrs. Dean and William H. Sage, gave his beautiful residence, on East State Street, for the purpose of an infirmary, and endowed the same with a gift of one hundred thousand dollars. This beautiful building of brownstone, with its ample grounds and spacious verandas, was set apart for the service of students of the university. By the act of gift its use was limited to them. It was transformed by the generosity of the donors so that it was admirably equipped for the purpose for which it was dedicated. Its lofty rooms formed bright and cheerful places for the suffering; rooms for rest and surgical operations and for the supply of food and nourishment, as well as quarters for the head nurse and her assistants. Separate accommodations were prepared for the young women. The number of students under treatment varies usually from ten to twenty. In the great epidemic of typhoid fever in 1903 even these admirable accommodations proved inadequate, and at one time fifty or sixty students found treatment at the same time within its walls. No recent act of beneficence has proved of such an indispensable character as this gift to the university.

In the year 1895-96 the trustees decided to erect a hydraulic laboratory, beside the Triphammer Falls and Fall Creek. "The accurate experimental study of resistance to the resultant forces of great masses of water and of the useful application of them with a minimum expenditure of effort, and the consequent ability to express their laws with mathematical exactness," is to-day of vital importance in all great operations in which the control of water, either at rest or in motion, enters as a constituent factor. "Existing laboratories deal with such small forces and apparatus

that it is impracticable to apply their results to the solution of many difficult problems which come up in important hydraulic works. There is no laboratory existing in which the characteristic problems of river regulation and harbor building can be studied." Having in mind these facts, it was decided to increase the expense contemplated in providing for a new water supply for the campus by the erection of a hydraulic laboratory. The plan of this work and the superintendence of the same was due to Mr. Frank S. Washburn, of the class of 1883. "The laboratory includes a canal excavated through rock along the south edge of Fall Creek Gorge from Triphammer Falls reservoir to the face of the cliff overlooking the falls. At the lower end a side channel branches to a vertical steel standpipe standing on a level with the foot of the falls. In order that the supply of water for the standpipe in ordinary circumstances may be independent of the conditions of flow in the canal, a thirty-inch pipe leads under the bed of the canal from an auxiliary entrance chamber provided for the purpose to the feed-pipe and side-channel connecting the canal and standpipe. Under normal conditions of usage the supply to the standpipe will be drawn entirely from the thirty-inch pipe. The distinctive features of the canal are the double-entrance chamber and double system of gates, ample weir chambers, and side-waste weirs. The canal proper is four hundred feet long, sixteen feet wide, and twelve feet deep, lined with concrete, backed with asphaltic waterproofing to insure against leakage, and there is an under-channel for the thorough sub-drainage of the surrounding rock strata. A waste weir set at the foot of the canal allows the entire flow to be wasted over the cliff except when it is desired to turn the flow through side-gates into the standpipe feeder. The discharge into the standpipe through the

thirty-inch pipe is measured by a weir set in the auxiliary entrance-chamber. The riveted steel standpipe, six feet in diameter and sixty feet high, is fitted with openings at intermediate heights which are suitably housed and connected by a staircase. The base of the standpipe is in a laboratory building twenty-four feet by fifty feet, set at the foot of the falls. A large reservoir is necessary for the successful performance of the more extensive experiments, and the present Tripphammer Falls reservoir will provide available storage for a number of million gallons of water.

"In connection with this work, a new dam was erected at Tripphammer Falls and an artificial lake created which would contain fifty-three million gallons of water, thus making it possible to afford additional power for laboratory purposes at all times." With these improvements a new system of sewers and water mains for the campus was provided.

The attention of the university authorities had been called for several years to the need of securing the land to the west of the university, between West and Stewart avenues. It was clearly foreseen that this land would be indispensable in the future growth of the university. The purchase of this land was unfortunately delayed, but it was finally obtained in 1903. At the same time, the acquisition of additional land for the needs of the College of Agriculture to indemnify it for the loss of fifty acres devoted to the athletic field was realized. About two hundred and thirty acres were thus added to the university estate.

Several plans were made at this time for the improvement of the grounds, one by the architects Carrère and Hastings, and a more elaborate and careful survey by Mr. Charles N. Lowrie, the landscape architect.

In the year 1896 an effort was made to preserve the

beautiful ravines from further despoliation and to increase the beauty of the university grounds. Mr. William H. Sage erected a new stone-arched bridge over Cascadilla Creek, constituting an improved approach to the campus; and the Hon. Andrew D. White gave the gateway which is placed west of Cascadilla Building, prepared after designs by Mr. W. H. Miller. This gateway consists of heavy stone piers twenty-five feet in height, flanked by twelve-foot walls, affording a central opening for a carriage drive and a similar opening for pedestrians. The gateway is composed of blocks of Ohio sandstone and limestone in alternate courses, and each pier is surmounted by a moulded cap of Ohio stone, terminating in a ball. Over the central opening is an elaborate wrought iron arch. At each end are wing walls, in the center of which are placed tablets bearing the following inscriptions:—Upon the west wing, "So enter, that daily thou mayst become more learned and thoughtful. So depart that daily thou mayst become more useful to thy country and to mankind"; upon the east wing, "The Lord bless thy going out and thy coming in from this time forth forevermore."

The New York State Veterinary College was erected in the years 1895-96, after plans by Assistant Professor Osborne.

On November 13, 1900, the upper story of the main college building was destroyed by fire. The professors of histology and pathology lost much valuable apparatus, and the latter a mass of valuable manuscript. Repairs on the partially destroyed building began in the following week, and the entire work was finished in the summer following. Certain improvements in the laboratories by which the danger of fire is lessened were made in the reconstruction.

Professor Fuertes had advocated for many years the

erection of an astronomical observatory. He possessed several telescopes which were purchased by the university, and which were installed in a wooden building which stood on the site of the north wing of the Goldwin Smith Hall. Later it was removed to the site of Stimson Hall. The building had many practical conveniences, owing to the skill and enthusiasm of the professor who planned it. It, however, was incomplete, and was itself a standing reproach to the campus. General Alfred C. Barnes, of the Board of Trustees, offered to erect a geodetic observatory which, while not large enough to meet the needs of an astronomical observatory, would yet serve for such astronomical practice as it was necessary for students in civil engineering to receive. This building stands on the eminence south of the veterinary college. It contains a computing room twenty feet square at the west end, a transit room, four piers, a clock-room, and two domes over the clock-room twenty feet and eighteen feet in diameter respectively. The west front extends south from the computing room, with a prime vertical transit room, a general instrument room, and a dome, eleven feet in diameter, above the instrument room. This observatory contained at its opening a five-inch equatorial, two altazimuths, two astronomical transits, and two zenith telescopes with two chronographs, and an astronomical clock. This building was completed so that it could be used in September, 1903.

Mr. Dean Sage, son of the Hon. Henry W. Sage, was the personal friend of Colonel Oliver H. Payne, and was actively interested in the establishment of the Cornell University Medical College in New York. In order to supplement the work of that college in the instruction of the university, he offered to erect a building for the medical department in Ithaca which should bear the name of Dr. Lewis A. Stimson, pro-

fessor of surgery in Cornell University, who was influential in establishing the medical college of the university in New York. The site chosen for the college was in the corner of the campus bounded by East and President avenues. It is thus situated on the south side of the quadrangle, directly east and in line with Boardman Hall, the other professional school of the university, corresponding in part to the architecture of the latter. This beautiful and very serviceable building, designed by Mr. W. H. Miller, which was skilfully planned for the purpose for which it was erected, contains on the first floor a museum, library, and lecture rooms, and upon the second floor general laboratories, while the third floor contains large dissecting rooms. In the basement are a cold-storage plant, embalming room, and crematory. The building is so designed that an extension can be erected to the south, duplicating the main building and furnishing a central court. Stimson Hall was formally opened on May 8, 1903, in the presence of the trustees, faculty, and students of the medical college, by an address from Dr. Lewis A. Stimson, for whom it was named. Dr. Stimson paid the following graceful tribute to the donor of the college:

“ This beautiful hall, henceforth to be devoted to the study of anatomy and physiology, is notable not merely as a generous gift, but still more as an evidence of the continuance of a sagacious and generous interest in Cornell University bequeathed to and maintained by the son of one whose influence for good in the history of the university has been paramount. When the life of Ezra Cornell ended, Henry W. Sage brought to the development and support of the resources of the university the wisdom, foresight, and generosity which established it upon a secure foundation and made possible that growth, the rapidity, the breadth, and the wise

direction of which have made it pre-eminent among institutions of its kind. And now his son, Dean Sage, has added another to those gifts with which the children have supplemented and extended the work and the liberality of their father.

“The brightness of this occasion and the joyous anticipations with which we were prepared to gather here have been grievously overcast by the untimely death of the giver just as the building approached its completion. It was Dean Sage’s desire that his connection with this gift should not be generally known and that no prominence should be given to it on this occasion, but his death has removed that injunction, and it has become a pious duty to make acknowledgment of it now, and not only of it but also of the other munificent gifts he made to Cornell University, either alone or in association with his brother. From him came, thirty years ago, the liberal fund of thirty thousand dollars which endows the pulpit of the chapel, and from them jointly came the gift of the infirmary and its endowment of one hundred thousand dollars.

“Warm-hearted, broad-minded, and of bountiful generosity, he was not satisfied simply to meet the demands made upon him, but he went out in search of opportunity; and his beneficence included not only gifts of money to institutions and his frequent and secret extension of individual aid to young men and women in the obtaining of an education, but it also led to personal labor in furthering many public causes in which labor is great and the return too often scanty and tardy. His was continuity of purpose and persistence of effort. And with it went such a shrinking from praise, and even acknowledgment, that we who are cognizant of a part of what he did, find a tearful satisfaction in this opportunity to render that homage and make those acknowledgments which were impossible

during his lifetime, and to offer as a due heritage to his family the expression of our affectionate appreciation and esteem which he himself shrank from receiving.

"I find pleasure in the thought that hidden in this very gift is an evidence of the affection and warm-heartedness which so endeared him to his friends; for it is associated with, and it supplements the aims and the work of that other great benefaction which so recently came to the university from one who had long been Dean Sage's intimate friend and close associate. And I doubt not that Sage found in this association with the work of his friend a gratification which was more personal and attractive to him even than that which came from the knowledge that his gift made closer the connection between the medical department in New York City and the parent body in Ithaca, and provided both for the education of students and also for that investigation and research which mark the difference between a university and a school of instruction."

Franklin Hall had been erected for the accommodation of the departments of physics and chemistry in the years 1881-82. At that time the entire number of students receiving instruction in physics did not exceed one hundred and fifty. The rapid increase in the number of students, which began with a class of one hundred and thirty-seven, graduating in 1888, and which has increased to five hundred and sixty-six in 1904, had made demands upon the department of physics which it was impossible for it to meet. It was necessary for it to afford instruction to all students in the technical courses, as well as to those who elected this subject from the College of Arts and Sciences. Temporary relief would have been obtained by the erection of Morse Hall for the study of

chemistry, had not the rapid increase in numbers far surpassed the number for which provision had been made in the department of chemistry. There was a lack of lecture rooms of adequate size, so that it was necessary for the professor of physics to repeat his lectures in order that all students in the general courses in physics might be accommodated. There was also a lack of adequate rooms for experimentation and suitable laboratories. More, perhaps, than all this was the additional demand for instruction in physics made by the new discoveries in electricity.

Under these circumstances, President Schurman presented to Mr. John D. Rockefeller the needs of the department, needs which it was impossible for the university to supply without impairing its endowment. After a careful examination of the university on the side of its material equipment, its finances, and its educational needs, Mr. Rockefeller offered, on May 27, 1901, "to give two hundred and fifty thousand dollars for the construction and equipment of a building to be devoted to physics, or to the humanities (*i. e.*, language, literature, philosophy, etc.), if funds for the former building shall have been otherwise provided, upon the condition of the raising of an equal amount of money from friends, of which at least one hundred thousand dollars shall be invested in approved securities or in a dormitory, the income from which shall be available for the maintenance of the building to be erected under this pledge." A site for the new Rockefeller Hall was found by removing the professors' cottages on East and Reservoir avenues, north of Professor Hammond's. The architects were Messrs. Carrère and Hastings, and the building was begun in the summer of 1904. Rockefeller Hall is to be of red brick with a stone foundation extending to the first floor, and rising to the height of three stories above

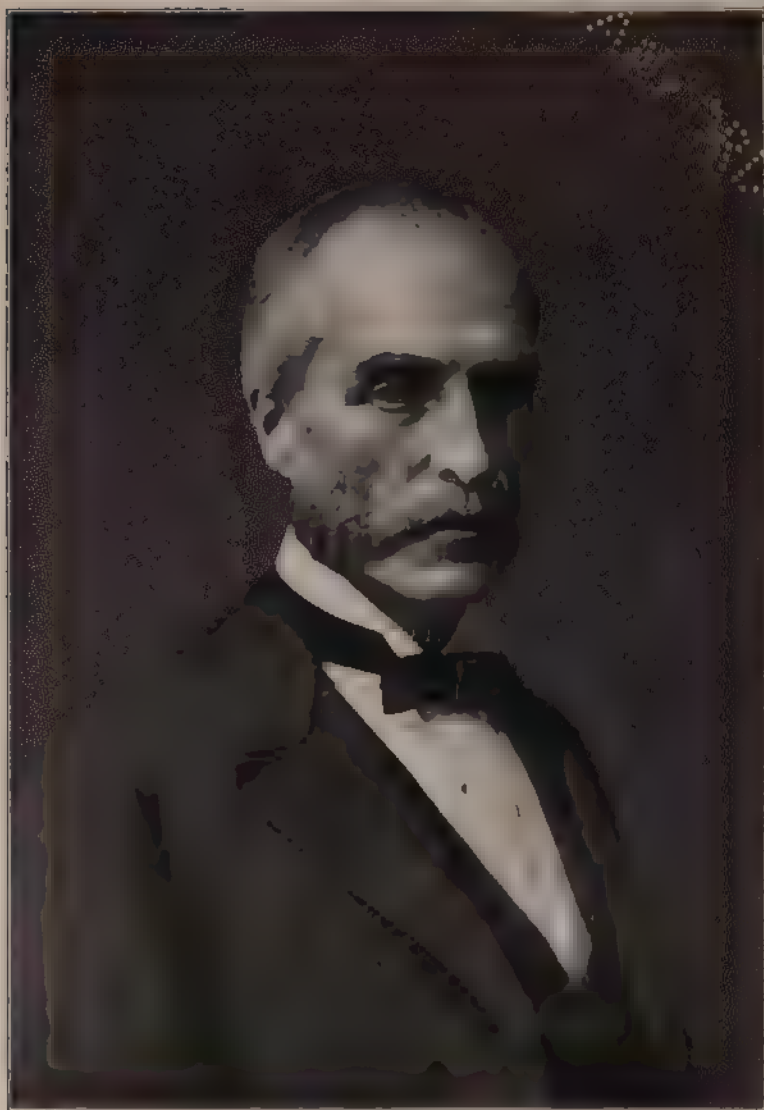
the ground floor. The west front of the building will extend for 258 feet along East Avenue, from which parallel wings will extend to the east 157×73 feet and 144×53 feet respectively, and which will be connected on the east by a wing, 135×56 feet. The dynamo laboratory will extend along the south side of Reservoir Avenue, and will be one story in height, 130 feet long, and 60 feet wide. It will contain offices, apparatus rooms, and a large floor for machinery 100×60 feet. The ground floor of the main building rests upon a massive foundation of concrete, and will be devoted primarily to research work in physics. The first floor will be given up to classrooms, small lecture rooms, offices, general library, and, in the north wing, the alternating-current laboratory and standardization rooms; on the second floor will be placed the sophomore and junior laboratories, and, in the south wing, a large lecture room seating six hundred, and a smaller one seating about two hundred; while the third floor will be devoted to apparatus rooms, museum, and extensive photographic laboratories.

In the year 1903 the income of the university was sufficient to make it possible to proceed with the erection of a Hall of the Humanities. An appropriation of fifty thousand dollars a year for five years out of the income of the university was made to defray the cost and equipment of this hall. Various suggestions respecting its proper location were made and several resolutions passed before the site chosen was finally adopted. It was felt by the faculty that a hall of the humanities should be located in the immediate vicinity of the library. It should also be in the center of university life, so that access to it by students from all departments receiving instruction therein should be possible. At the same time it was desirable to preserve the stone quadrangle. The judgment of the faculty was

that the hall should be located either opposite Boardman Hall or upon the east side of the campus, thus completing the quadrangle. A decision was reached in favor of the latter site, and Messrs. Carrère and Hastings, of New York, were chosen as the architects. The Goldwin Smith Hall is to be an E-shaped building of gray Ohio sandstone, 380 feet in length and 54 feet in depth, with two wings extending to the east towards East Avenue, each 90 feet in length. At each end of the main building there will be a large square-roofed lecture room seating about 200 persons, while midway between the two wings there will be a third lecture room, semicircular in form, seating about 300. The need of large lecture rooms, intermediate in size, for public lectures, has been greatly felt. The archaeological museum will be established on the ground floor with adjacent rooms for class work in archaeology. The departments of Semitics, Greek, Latin, English, and German will be accommodated on the first floor; those of Romance languages, philosophy, education, history, and political science on the second; and in the third story, which is concealed in the roof, there will be a large study and reading-room, lighted from above. In addition to abundant and generous classrooms, liberal provision will also be made for departmental offices and studies.

The corner stone of the Goldwin Smith Hall was laid by the venerable professor of history on October 19, 1904. The literary exercises in connection with this event were held in the armory, where addresses were delivered by President Schurman, ex-President White, and by Dean Crane in behalf of the faculty. President Schurman in behalf of the university thus spoke of the services of Professor Smith to the university:

" In October, 1903,—just twelve months ago,—I had



Goldwin Smith

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the honor of presenting to the Board of Trustees a resolution in regard to the designation of this new hall of the humanities at Cornell. I asked the trustees to name it the Goldwin Smith Hall. The trustees unanimously and cordially adopted this proposal. And this action of the president and trustees has been ratified with one approving voice by the members of our entire university community—by professors and undergraduates here and by old students and alumni in the larger world outside,—as not only eminently appropriate, but so appropriate that no alternative is conceivable.

“ We honor Goldwin Smith as one of the early professors of Cornell. He came to the youngest of American universities from the oldest university in the English-speaking world—from Oxford, where, after a distinguished career of scholarship, he had held the Regius professorship of history,—and his great reputation as a man of letters, an historian, and a publicist, at once reflected luster upon our new and struggling university.

“ We honor Goldwin Smith as the constant friend of Cornell University. A generation ago, when the institution was the object of cruel attacks and its very life was in danger, he stood on this campus on a memorable occasion and repelled the outrageous and malicious charges that had been leveled against the founder and against the management of the university. Nay, more, he expressed, even in those dark days, a serene and confident and almost exultant hope of the great future of the university—the future which in some measure we now see about us an actuality. ‘ No one,’ he said, ‘ can yet exactly predict what form the institution will ultimately take; but I believe it will be a great and good institution, and one which any man will feel it an honor to serve. I have believed it an honor to serve it. My affections for it are unchanged. My hopes for

it are unabated.' And this has been his constant attitude ever since. Long may this devoted friend continue to be our emeritus professor of history!

"We honor Goldwin Smith as the friend of our republic. In the dark days of the Civil War, when the sympathy of European nations was against the Union, he was its champion and defender. With John Bright, Cobden, John Stuart Mill, and kindred spirits Goldwin Smith set himself the task of informing and clarifying public opinion in England on the issues of the Civil War; and, thanks to that enlightened public opinion, the English government, in spite of great temptations, maintained a perfectly proper attitude towards the government of the United States.

"We honor Goldwin Smith as the friend and champion of democracy, liberty, and peace among the nations. There lives to-day no truer apostle of the American doctrine of government of the people, for the people, and by the people. Nor lives there a man of keener discernment of tyranny, whether it be the tyranny of monarchs, the tyranny of transient, popular majorities, or the tyranny that masks as national beneficence. Individual freedom, national independence, and the reign of justice and universal peace and happiness of the masses of mankind are the ends for which this publicist has consistently striven with voice and pen, alike in England and in America. It is a record to thrill the spirit alike of ingenuous youth and of noble-minded age.

"We honor Goldwin Smith as the exponent and exemplar of the highest culture of the nineteenth century. His spirit has been nurtured and formed by the best literature of classical antiquity and of modern times. As an historian he has striven like Plato's wise man to be a spectator of all time and all existence. Thus more easily than most men he has adjusted him-

self to the changes in the world which he has now surveyed for more than fourscore years. Literary man though he is, he has welcomed the progress of science and willingly accepted its general theoretical results. Nor have the deep and dark problems of philosophy daunted this intrepid searcher after truth. What, in view of existing knowledge, can reasonably be affirmed, he has not hesitated to affirm—nor has he scrupled to remain in doubt where the plummet of his spirit could touch no bottom. I call him, all considered, as perfect an exemplar as lives to-day of the knowledge, culture, and thought of our time.

“ May the years fall gently and graciously on the head of this learned, thoughtful, and noble man.

“ May the blessing of Providence rest on the Goldwin Smith Hall which to-day, in his honor, we dedicate to the liberal culture of the human spirit.

“ It is our privilege to welcome Mr. Goldwin Smith in person to-day. I trust he already knows how much we appreciate his presence and what admiration and affection we entertain for him. I shall not keep him longer from you in the vain task of endeavoring to express the emotions his name and presence awaken in our bosoms. [Turning to Mr. Goldwin Smith.] I have the honor to present you, sir, to the trustees, the faculty, and the students of Cornell University.”

Professor Goldwin Smith delivered the following brief and touching address, beautiful with memory of the past, and full of hope for the future of the university:

“ You have bidden me to lay the first stone of a noble building to be dedicated to art and culture. You are going to call the building after my name. How can I acknowledge the honor? You know perhaps the passage in Boswell’s ‘Johnson,’ describing the interview of Johnson with his king. Johnson is reading

in the royal library. The king enters, goes up to him, and pays him a high compliment. Johnson receives it in silence. 'If the king said it,' he explained afterward, 'it was to be so; it was not for me to bandy compliments with my king.' So, I say, 'If the university wills it, it is to be so; it is not for me to bandy compliments with the university.' The honor is deeply felt, and he on whom it is conferred heartily wishes that it had been better earned.

"A long life now at its close has many memories of mingled happiness and pain. One memory is unalloyed. Bright in my life, though dark and sad with rain, was the November morning in the year 1868 on which I landed from the night train in Ithaca, was received by Andrew White, and afterward taken out by Ezra Cornell to the campus on which then stood one poor block,—which now is covered with the stately buildings and is joyous with student life of the great Cornell University.

"However, it is not what I have done or was capable of doing, but what I represent. This building is to be partly dedicated to the culture of which the old English schools and universities were the special seats. That culture, an Eton boy and a graduate of Oxford, before university reform and the recall of science and modern studies to the curriculum, may be said to represent in the most antiquated form. Classical culture has been dethroned, even at Oxford—not killed or banished. It is to be hoped that it and culture generally, though they have largely and inevitably given way, especially in an industrial land like this, to the practical sciences and the utilities, will yet live. For fortunes have not only to be won, but to be worthily enjoyed.

"An emeritus professor of Cornell, who is also an ex-professor of Oxford, may perhaps be taken to repre-

sent the sisterhood of universities, American and European, which, amidst all this angry conflict of contending factions, this murderous strife of nations in more than bloody wars, these desperate wrestlings for territorial empire, is calmly doing its appointed work of education, of the advancement of science, of general enlightenment, and laying broad and deep the foundations of the empire which alone is universal and alone will endure without end.

“ Mention has been made of the part played by me in relation to your Civil War. In this, too, I was but a representative. The hand which I laid in that of Abraham Lincoln was not my own but that of the great party in England, headed by Bright and Cobden, which was true to your cause in its darkest days. True to your cause in its darkest days, let me always repeat, was the great mass of the English people,—though the war deprived them of the cotton by which millions of them lived.

“ Perhaps, even as the native of another country, so kindly welcomed, so heartily admitted to partnership in a great work so richly rewarded here, I may be taken, as the recipient of this honor, to represent a still wider unity than that of the sisterhood of universities. On the campus, I see, still stands a stone seat, graven by the hands of English workmen who came out to see me here, with the inscription, ‘ Above all Nations is Humanity.’

“ I fear I am bidding a long farewell to Cornell and all the objects of my long interest and attachment here. I do it with a full heart of affection and gratitude. Often, on the distant shore of Lake Ontario, I shall hear the chimes of Cornell. The golden fruits of all kinds which the university has borne since I met her founder here may she continue to bear, and in ever-increasing measure, through the years to come.”

In the minds of those present, the pensive character of his words caused the address to assume the form of a valedictory and a farewell to the scenes which had been associated with his labors and affections for thirty-six years.

A new power plant was erected in the summer and autumn of 1904, at an expense of fifty thousand dollars, which was appropriated from the income of the university for the years 1901-02. "This consists of a stone gate-house near Beebe Lake (whence the water is drawn), from which a five-foot conduit or tunnel leads underground along the top of the north cliff to a point above the present power-house, and is there joined by a second conduit inclining down through the rock to the new power-house in the bed of the stream."

"The past year has also seen the completion of the Carnegie Filtration Plant, the gift of Mr. Andrew Carnegie, which has been located on the hill to the east of the site selected for the agricultural buildings. The building, which is simple and direct in design, is constructed with plain red-brick walls, relieved by a cornice of stucco, the whole composition deriving character and repose from a roof of dark red tiles with broad, overhanging eaves. The filtration plant itself is unique both in design and construction, for while it is planned primarily with a view to furnishing an abundant supply of absolutely pure water for the university community, it will also be used incidentally for the purposes of scientific research, whereby it is hoped information and data relative to water filtration may be obtained of value to the scientific world. A large coagulation basin, constructed of concrete on the principle of the hydrostatic arch, and containing two stories and four compartments arranged in such a way that one or all can be used as desired, receives the raw water from the pumping station in the Fall Creek

Gorge, whence the supply is drawn. Before entering the coagulation basin, however, the water is charged with a solution of aluminum sulphate, fed into it by a system of gravity from two mixing tanks, which are in turn supplied with the sulphate from two dissolving tanks. After a period of sedimentation, during which the greater part of the impurities in the water are removed, the water is passed on to the sand filters, two in number, and each of a daily capacity of over 300,000 gallons, where it is relieved of all remaining impurities. It is then collected in a pure water well of 28,000 gallons capacity beneath the filters. From here it is fed through pipes into the university reservoir, which has in turn been enlarged to a capacity of about 1,250,000 gallons and covered with a steel roof."

The National Land Grant Act required that every state which availed itself of the provisions of that act should provide a college building for the purpose specified by Congress. The state, in accepting this act, bound itself to provide a building for the purposes stated in the act. This obligation the state had never discharged. Agricultural instruction in the university has suffered from the lack of an adequate home. The valuable work which the university has done in promoting the interests of the farmers of the state,—special courses in agriculture for farmers' boys, the holding of farmers' institutes, the investigation of disease of fruit orchards and in live stock,—had won the gratitude of the farmers of the state; hence the demand that the state should make adequate provision for agricultural education. Farmers' associations throughout the state were unanimous in this request, and it became imperative for the legislators of the state to bow to the demand so universal.

Governor Odell called attention to the fact that other commonwealths had contributed largely to the support

of agricultural education, and that it was important that the state of New York should make adequate provision for this necessary instruction. He added: "There have been many applications from the agricultural interests for such recognition. Without making any specific recommendations as to the line which you should follow, I had desired to impress upon you the necessity for complying with these demands, which I believe to be reasonable and in the interest of New York." This legislation was actively opposed by the presidents of several of the colleges of the state. Unmindful of the fact that their colleges did not provide the instruction in agriculture, and that they were not in a condition to do so, and that Cornell University had furnished the only instruction of this kind which the vast agricultural interests of the state had ever enjoyed, every possible instrumentality was used to defeat the legislation desired. Had the purpose of the bill been to secure an appropriation for literary and scientific subjects, which these institutions afforded, such opposition would have had an apparent justification; but as made, this hostility was directed against a beneficent provision in the interests of popular education. The legislature passed a bill appropriating two hundred and fifty thousand dollars for a college of agriculture at Cornell. The trustees selected a site on the east side of Garden Avenue, a new avenue extending from the reservoir southward to Cascadilla Gorge and in a line parallel with East Avenue, on an elevation presenting a splendid panorama of all the surrounding country. The state architect, George L. Heins, will be the architect of the new building.

CHAPTER XXI

THE UNIVERSITY LIBRARY

THE formal opening of the university may fitly be taken by the annalist as the beginning of the library's independent existence; but the principles which were to guide its formation and growth had been clearly laid down in the "report of the committee on organization," and, of necessity, much had to be done in the way of collecting books before the library could be said to have an existence. At the sixth meeting of the Board of Trustees, held September 26, 1867, an appropriation of \$7,500 for the purchase of books was made, which was increased to \$11,000 at the meeting of February 13, 1868. To all who were engaged in the preparations for establishing a fully equipped university on what had been till then a mere hillside farm, the summer of 1868 was an exceedingly busy season. One of the first purchases for the new university—the classical library of Charles Anthon, numbering over 6,000 volumes—had already been made. In the spring, President White had gone to Europe, armed with formidable lists of books and apparatus to be collected, and made large purchases of scientific and literary works, one of the most important of his acquisitions being the library of Franz Bopp, the famous philologist. Thus cases of books and apparatus began to arrive long before any place was prepared to receive them. A temporary shelter, however, was found for the books in the halls and attic rooms of the Cornell Library in this city.

At the opening day in October, the only university

building under cover was Morrill Hall, better known to old Cornellians as the South Building. Of this building the middle section alone was available for library, lecture rooms, and laboratories, both wings being wholly occupied as dormitories.

To the library were assigned the two rooms on the ground floor, the present faculty room, and the registrar's office. The walls of these rooms were lined with tall bookcases, extending to the ceiling. Some of these bookcases, it may be noted, had already done service in the library of the short-lived State Agricultural College at Ovid. These wall bookcases, however, were by no means adequate to contain all the books even then received, and when the university opened, thousands of volumes were still stored away in boxes. Nor was there immediate prospect of obtaining more shelf-room. Indeed, so great and so urgent was the demand for more classrooms, it was found necessary to hold lectures and recitations in the rooms occupied by the library, much to the inconvenience of readers, who were thus, during the greater part of the day, deprived of the use of the books. This state of things continued throughout the first two terms, and the greater part of the third. For though it was promised in January, 1869, that within a few weeks, at most, the new laboratory building would be completed, to which the lectures held in the library rooms would then be transferred, yet in this case, as in so many others, hopes proved delusive, and it was not until April that the laboratory building was ready for occupancy, and May was well advanced before the books were fully in order on the shelves. Comparatively little use was made of the library by the students in the first year.

In December, 1868, the librarian, Professor Willard Fiske, arrived and took charge of the library, which was under his direction from that time until his resig-



THE LIBRARY



nation in 1883. In the latter part of 1868, the British government presented to the library a complete set of Patent Specifications, and estimates were obtained of the cost of binding them; but as it was found that the binding would cost about \$6,000, a sum which could not well be spared just then, they were ordered to be stored in London until a more convenient season. There they remained until 1880, when a special appropriation was made for binding them, and finally, in 1881, this great set, numbering over two thousand seven hundred volumes, was received and shelved in the tower of the McGraw building. From a memorandum of a count of the library made about the first of January, 1869, including, evidently, only the books then upon the shelves in Morrill Hall, it appears that the number of volumes in the two rooms was 15,400.

About this time Goldwin Smith generously offered to give to the university his valuable private library, comprising some 3,400 volumes. It is needless to say that the offer was joyfully accepted, and instructions were at once sent to the library's agent in London to remove the collection from Mortimer House, near Reading, where it then was, and forward it to Ithaca. Towards the end of March the books arrived, but the task of arranging them upon the shelves was deferred until the summer vacation. This, it may be observed, was but the beginning of Goldwin Smith's benefactions to the library. Later he gave \$2,500, and in June of 1870, \$1,000, to be spent in the purchase of books; in 1871 he gave a valuable collection of works on Canadian history, and from time to time since then has presented many important works.

Meantime, in February, 1869, John McGraw, seeing how urgent was the need of more room for library purposes, had offered to erect a library building to cost \$50,000. Archimedes Russell, a Syracuse architect,

was commissioned to prepare the plans, and in the spring the excavations for the foundations of the McGraw building were begun. At the first Commencement of the university, in June, 1869, the corner stone of the building was laid with Masonic ceremonies, and addresses were given by Stewart L. Woodford and John Stanton Gould.

At the opening of the second year, in September, 1869, the library still occupied its first quarters in Morrill Hall. The room on the north side of the middle entrance was then the reading room, to which the public entrance was at the west end of the central hall. Upon entering, the student found himself in a room about fifty feet in length by twenty-five in breadth, lighted by three windows at each end, the walls lined from floor to ceiling with books. The central portion of this room, a space about thirty-six feet long and twelve wide, was surrounded by pine tables, painted a dark chocolate color, and surmounted by a low railing. In front of these tables stood benches of the sort then used in all the lecture rooms, a few specimens of which may still be seen in some of the smaller classrooms in White Hall. These benches afforded seats for not more than forty readers at the most. It is therefore not surprising that frequent complaints were heard of lack of accommodations for readers.

In this room the encyclopedias, periodicals, and the works on arts and sciences, philosophy, theology, and law were placed. In the corresponding room on the south side of the hall were the books relating to philology, literature, history, and geography. When, in 1870, President White gave to the university his valuable collection of architectural works, with a sum of money for its increase, as there was no space available for its reception in either of these two rooms, the collection was placed in the small room at the southwest

corner of Morrill Hall, now the treasurer's office. In this year, too, the pamphlets and unbound periodicals had become so numerous that the room now occupied by the business office was also taken possession of for library purposes.

In the spring of this year an effort, which was all but successful, was made to obtain for Cornell the mathematical library of W. Hillhouse of Hartford, but, owing to an unfortunate delay in transmitting the decision of our trustees to purchase the collection, it was secured by the Sheffield Scientific School. President White generously offered to subscribe for the acquisition of this library, and to give, in addition, his entire architectural library—at that time richer than the entire corresponding collections in the Astor, Yale, and Harvard libraries. A little later in the year, however, William Kelly of Rhinebeck, one of the trustees of the university, gave \$2,250 for the purchase of mathematical works to make good this loss. With this fund over 1,500 volumes were obtained, to which the name of the Kelly Mathematical Collection was given. For this collection a place was found in the room in the northeast corner of Morrill Hall. In December, 1870, the Rev. S. J. May of Syracuse, an early and devoted champion of the abolition movement, presented to the university his collection of books and pamphlets relating to slavery. This was the beginning of what is now known as the May Anti-Slavery Collection. A few months later, it was largely increased by gifts from R. D. Webb of Dublin, and Mrs. Elizabeth Pease Nichols of Edinburgh, both well-known supporters of the anti-slavery cause in the mother country. Since then the collection has received many additions from persons who took active part in the great struggle against slavery in this country, and to-day it is one of the largest and most complete collections on the subject. For this,

and the rapidly growing newspaper collection, temporary accommodation was provided in the room now occupied by the horticultural department, in the northwest corner of Morrill Hall.

In June, 1871, according to the report of the librarian, the number of volumes in the library was 27,500, and notwithstanding the increased number of rooms which were occupied, the evils of overcrowding were keenly felt. Meanwhile the walls of the McGraw building had been steadily rising, and by November it was so far advanced toward completion, that it became necessary to decide just what portion of it should be occupied by the library, in order that the needful fittings might be prepared. The original intention seems to have been to lodge the library on the second floor, in the space now occupied by the museum, but wiser counsels prevailed, and it was finally decided that the large room on the ground floor, which had at first been intended for a great lecture hall, should be made the home of the library, leaving the second floor with its galleries free for museum purposes.

At the beginning of 1872, thanks to the timely aid of Henry W. Sage, who advanced money for its purchase, the university fortunately succeeded in securing the Sparks collection of American history, numbering over 5,000 volumes. In April the books began to arrive, but as the new quarters were not yet ready, and there was no room to spare in the old, cheap accommodation was found in the south attic room of the new building and there the collection found temporary shelter. It is evident that the library at this time was most inconveniently situated, occupying, as it did, six widely separated and unsuitable rooms in Morrill Hall, and one room in the upper story of the McGraw building. It was hoped that the summer of 1872 would see these *dissecta membra* brought together, and the whole li-



READING ROOM OF THE LIBRARY



brary made readily accessible to students. But again our hopes were disappointed; the summer passed, and autumn was well advanced before the new quarters were ready for occupancy. At last, on the 5th of October, the task of moving the books was begun, and for several weeks the library was closed to readers while the books were being transported from the old building to the new. The work was mainly performed by students, who carried the books in boxes from the various rooms in Morrill Hall to the new quarters, where they were speedily arranged and placed on the shelves in substantially the same order. On Monday, November 18, the library was opened to students in its second home, a large room, with alcoves on either side and reading tables in the central space. In the year 1873, Mr. Cornell purchased and presented to the library an interesting collection, comprising the books on electromagnetism and the early history of the telegraph, formerly owned by S. F. B. Morse, with whom Mr. Cornell had been associated in the construction of the first telegraph line between Baltimore and Washington. A memorandum of a count of the books made in June, 1873, shows that the number of volumes on the shelves was then 34,100, exclusive of 8,000 pamphlets.

Up to this point in its history, the growth of the library, though somewhat irregular and spasmodic, had been rapid, and its career prosperous. But not long after its removal to the McGraw building, the university entered upon a period of financial distress, and one of the first departments to feel the pinch of poverty was the library. One after another, important periodicals and transactions were perforce suffered to fall into arrears, and purchases of new books became fewer and fewer. In 1873, the librarian made an appeal for a large appropriation for immediate use, pointing out that though the acquisition of several collections had

made the library comparatively rich in some departments, it was deplorably weak in others, and urged the necessity of an annual appropriation of at least \$10,000. In view of all the circumstances, it is not surprising that the appeal was made in vain. Nor is it surprising that the library should continue to fall behind, when we find that, from this time until 1880, the regular annual appropriation for the increase and maintenance of the library was only \$1,500. In 1877 the librarian reported that, during the past year, no orders for new books had been sent abroad; that the total number of volumes added during the year was only 448; that 376 of these had been presented, so that only 72 volumes had been purchased; that of these 72 volumes, 56 were continuations of serial works, leaving 16 as the number of new books purchased within the year. In 1878 and 1879 the same story is repeated with very slight variations in the numbers.

At last, in the autumn of 1880, a full and forcible statement of the lamentable condition of the library, accompanied by an urgent appeal for relief, was presented to the trustees, and, coming at a more favorable time than the former one, it met with greater success. In December a special appropriation of \$20,000 was made for the increase of the library, of which \$5,000 was available for immediate use. Large orders for books were at once dispatched, and in the annual report of June, 1881, it is stated that 800 volumes of new books had already been received, and many arrears canceled.

By the untimely and lamented death of Mrs. Jennie McGraw-Fiske, in September, 1881, the university became the recipient of a fund, which, it was estimated, would prove to be not less than a million dollars, the income of which, by the terms of Mrs. Fiske's will, was to be devoted to the support, increase, and maintenance

of the university library. With such an endowment the future of the library seemed secure, and the hardships of the past few years were almost forgotten in glowing anticipations of the rapid development which was now to begin. In 1882 the first instalment of the fund, some \$700,000, was received, and for six months the library enjoyed the income of this fund. In July, 1883, however, a suit contesting the will was begun, and pending the issue of the contest, the library, deprived of all income from this source, had to rely upon annual appropriations from the general funds of the university. Happily these appropriations proved to be more nearly commensurate with its needs than those of former years had been.

Meantime, however, the bequest had already begun to bear fruit. One of the greatest defects of the library had always been the lack of any satisfactory catalogue. Early in 1882 it was decided to begin at once a general card catalogue of the books, and after careful consideration of the various forms of catalogues in vogue, the dictionary system was chosen as being, on the whole, better adapted to the use of our students than a systematically classified catalogue, which would be chiefly of service to trained specialists.

In January, 1883, a statute was passed establishing a Library Council, composed of the president and the librarian, one member of the Board of Trustees, and four members of the faculty. To this council were entrusted the general supervision of the library and the apportionment of the funds. In the summer of this year Professor Willard Fiske, who since 1868 had wisely guided the development of the library, resigned the office of librarian, and was succeeded by G. W. Harris, who had served as assistant librarian since 1873.

The removal of the architectural department to Mor-

rill Hall, in 1883, left vacant several rooms in the north wing of the McGraw building, and these were taken possession of by the library. The former draughting room was fitted up as a seminary room and room for special study for members of the senior class. The two smaller rooms on the west side of the hall were given to the cataloguing department and the bibliographical collection. The increasing growth of the library, however, called for still further extension of its quarters, and in 1884 plans were prepared and estimates obtained for the conversion of the present geological lecture room into a general reading room, and for the erection of bookcases in the lighter portions of the existing reading room. In this way it would have been possible, at slight cost, to provide suitably for the accessions of the next ten years. At that time, however, it was firmly hoped that within two or three years the contest over Mrs. Fiske's will would be concluded, and that the library would again be placed in the possession of its endowment. In that event it was designed to erect at once a fireproof library building, and it was therefore thought best to make no further changes in the present building. But once more our hopes were dupes. The three years reached seven before the final decision came, and for the last five years of this period the overcrowded condition of the library was a source of constant inconvenience and discomfort to all who used it. Thousands of volumes had to be stored away in an attic room where they were almost inaccessible; on many shelves the books were ranged in double rows; many of the larger volumes were piled upon the floor; and the attempt to preserve anything like a systematic arrangement of the books by subjects became almost hopeless.

In the autumn of 1884, Eugene Schuyler gave to the library a valuable collection, numbering some six hun-



THE WHITE HISTORICAL LIBRARY

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dred volumes, chiefly relating to folklore, Russian literature and history. In January, 1886, the electric light was introduced, and the library hours which, until then, had been from 8 A. M. to 5 P. M., were greatly lengthened. At present the hours are from 8 A. M. to 11 P. M. in term time. In 1886 the purchase of the law library of Merritt King, numbering some four thousand volumes, made an admirable beginning of a library for the school of law which was soon after established. In January, 1887, President White formally presented to the university his great historical library, containing over twenty thousand volumes, upon condition that a fireproof room in the proposed library building should be provided for it, and suitable provision made for its increase. At that time the will suit was still undecided, and though it was determined to procure plans for a fireproof library building, its erection seemed likely to be delayed for several years. In 1888, however, Henry W. Sage, recognizing the need for immediate action, generously offered to provide the funds for the construction of the building, on the single condition that should the final decision in the will suit be favorable to the university, the money advanced for this purpose should be repaid. Should, however, the decision be adverse, the building was to become the gift of Mr. Sage, who also declared his intention, in that event, to endow the library with a fund of \$300,000 for its increase. From the designs submitted to the trustees, that of W. H. Miller, an old Cornellian, was selected, and in the summer of 1888 work was begun upon the foundations. The first stone of the foundation walls was laid in place on September 27, 1888. The corner stone of the building was laid with public and formal ceremonies on October 30, 1889.

In May, 1890, a final decision in the will contest was given by the Supreme Court of the United States, and

by it the library was entirely deprived of the endowment bequeathed to it by Mrs. Fiske. Happily Mr. Sage's generosity had provided for this contingency, and the library was henceforth indebted to him for its new building and the endowment for the purchase of books.

The general outlines of the library building are somewhat in the form of a cross, the bookstacks occupying the south and west arms, the reading rooms the central space and the eastern arm, while the northern provides quarters for the offices of administration, the President White Historical Library, and seven seminary rooms. In August, 1891, the removal of the books from McGraw Hall to the new building was safely accomplished. In September the books of the President White Library were transferred to the custody of the university and arranged in the handsome room provided for them. On October 7 the formal gift of the library building and the endowment fund of \$300,000 was publicly made by the Hon. Henry W. Sage and accepted on behalf of the university by President Adams. At the same time President White made the formal presentation of his library with its rich special collection of the primary sources of history, notably those on the Reformation, the Revival of Learning, the Thirty Years' War, the French Revolution, the American Civil War, Slavery, Superstition, Torture, and Witchcraft, numbering in all over 20,000 volumes. The publication of a catalogue of this great historical library was entrusted to Professor George L. Burr, who for ten years had had the care of the collections, and was now appointed librarian of the President White Historical Library. The catalogue of the collection on the Protestant Reformation was issued in 1889, and that of the French Revolution in 1897. The catalogue of the collections on Superstition, Tor-

ture, and Witchcraft is now in an advanced state of preparation.

By the gift of the Sage Endowment Fund an assured and liberal income was provided for the increase of the general library, which, at the time of its removal to the new building, numbered 96,000 volumes, exclusive of the law library, which then numbered about 9000 volumes. Since 1891, the annual accessions have averaged about 12,000 volumes. With the greater facilities for study afforded by the new reading room and its well equipped reference library, and the inducements offered by the seminary rooms for the prosecution of advanced study and research, came a corresponding increase in the use of the library, the recorded use during the first year in the new building being nearly four times as great as in the preceding year. In December, 1891, the library received from Willard Fiske the gift of a remarkably complete collection of Rhaeto-Romanic literature numbering about 1,000 volumes. In the spring of 1892 President White presented to the library an interesting collection of Mormon literature.

The twenty-fifth year of the library's existence, 1893, was signalized by three noteworthy gifts. First came, in February of that year, the generous gift of the comprehensive and carefully selected law library of some 12,000 volumes collected by the late N. C. Moak of Albany. This collection which had long been known to lawyers as the finest private law library in America, was purchased and presented to the Law School of Cornell University as a memorial of the first dean of the school, Douglass Boardman, by his widow and daughter. By this gift the law library was more than doubled in numbers, and at once took rank among the leading law libraries of the country.

Next came, in June, the noble gift of the extensive library of the late Friedrich Zarncke, which was pur-

chased and presented to the university by William H. Sage. This library, which numbers about 13,000 volumes, is especially rich in German literature before the time of Luther. The section devoted to the literature of the Nibelungenlied alone contains over 300 titles, and the literature relating to the Minnesingers is well-nigh as fully represented. But even these collections are surpassed in extent and completeness by the three special collections on Goethe, Lessing, and Christian Reuter.

The third great gift of this year was a remarkable collection of Dante literature, numbering then about 3,000 volumes, presented by Willard Fiske, so long the librarian of the university. To this collection the donor has continued to make constant and great additions until it now contains over 7,000 volumes, and is undoubtedly the largest collection of Dante literature to be found. The catalogue of the collection, prepared by T. A. Koch, and published in 1900, in two volumes, is acknowledged by Dante scholars to be the most comprehensive, exact, and valuable Dante bibliography ever published. Following close upon these, came, in 1894, the gift of an interesting collection of Spinoza literature, containing about 450 volumes, presented to the library by President White. In this collection all the editions of Spinoza's works are said to be present, with numerous commentaries and discussions of Spinoza's philosophy. In October, 1893, the library received a gift, known as the Lucy Harris Fund of \$1,000, the income of which is applied to the formation of a collection of the Victorian poets. Starting with the small nucleus of the works of the chief poets of the period, then in the library, the collection now numbers about 1,300 volumes.

In 1896 Professor T. F. Crane presented to the library several hundred volumes of rare and valuable

works on French and Italian Society in the sixteenth and seventeenth centuries. In 1897, by the gift of \$5,000 from Governor Flower, there was established the Flower Veterinary Library for the use of the veterinary college, and in 1901 Mrs. Roswell P. Flower gave to the university an endowment fund of \$10,000 for this special library, thus making permanent provision for its continued growth and usefulness. In 1897 President White generously turned over the entire income from the sales of his *History of the Warfare of Science* to the librarian of the President White Library to be used for the purchase of books in those fields of the history of civilization which fall less directly within the scope of university instruction, and from this source a considerable addition is made to the funds available for the growth of the collection.

In the year 1898 the chief gifts were a collection of Byroniana from Professor J. M. Hart, a collection of pedagogical works from Professor S. G. Williams, and a collection of Dreyfus literature from Theodore Stanton, of the class of 1876, who, in the next year, presented to the library over 1,500 volumes of the Tauchnitz collection of British and American authors. In 1901 the library received as a bequest from the lamented Moses Coit Tyler a complete set of annotated copies of his published works, and a carefully arranged collection of his correspondence from 1854 to 1900, with other volumes of manuscripts gathered by him, forming a unique collection of great interest.

The year 1902 was marked by the gift of the Egyptological library of the late August Eisenlohr, purchased and presented to the university by A. Abraham of Brooklyn. This collection of nearly 1,000 volumes, comprising complete sets of all the leading Egyptological periodicals, and many costly facsimiles of Egyptian papyri, is one of the most important and val-

uable additions recently made to the library. In 1903 President White presented to the library an exceedingly interesting collection devoted to Fra Paolo Sarpi, which he had formed during a recent visit to Italy.

Such are some of the chief gifts made to the library in the twelve years that have passed since it took possession of the new building and began to receive the income from the Sage Endowment Fund, upon which it now mainly depends for its regular and systematic growth. During this period the university library has grown from 105,000 volumes to 285,000 volumes, and the recorded use of the books in the library has increased, in round numbers, from 35,000 volumes in 1891, to 120,000 volumes in 1903. The facilities offered for advanced study and investigation by the seminary rooms with their special collections and their policy, consistently pursued, of building up here a great reference library for the aid of research, have combined to give the library an enviable reputation for efficiency in university work and have given it high rank among the libraries of the country.

In May, 1903, after considerable discussion of the proposition, advocated by some, to change the library from a reference library into a general circulating library, the library council unanimously adopted the following principles of policy: First, that the general university library be maintained as primarily a library of reference; second, that in order to afford to students greater facilities for home reading there be established a circulating library. In pursuance of this policy the formation of a separate circulating library has been begun, for which it is planned to provide quarters in a portion of the large lecture room below the main reading room. Here the books designated for circulation will be kept on open shelves, to which all readers may have free access and make their selections

from the books themselves, rather than from the catalogue. In this way it is hoped that much may be done to develop and foster the reading habit among our students.

THE LIBRARY STAFF

LIBRARIANS

Willard Fiske	1868-1883
George Wm. Harris (Acting Librarian, 1883-1890)	1883-

ASSISTANT LIBRARIANS

George Wm. Harris	1873-1883
Andrew C. White	1889-
Charles H. Hull	1889-1889
William H. Hudson	1890-1892
Willard H. Austen	1892-
Mary Fowler	1899-1903
Katharine Dame	1903-

ASSISTANTS AND CATALOGUERS

(Not including Undergraduate Assistants.)

William Harkins	Assistant	1872-1873
Charles P. Woodruff	Assistant	1876-1879
Annie E. Hutchins	Cataloguer	1881 1883
Horace S. Kephart	Cataloguer	1881-1885
Harry L. Koopman	Cataloguer	1882-1884
Andrew C. White	Assistant	1883-1884
Edwin H. Woodruff	Cataloguer	1884-1887
Lewis H. Tuthill	Assistant	1884-1885
Ellen C. Brown	Cataloguer	1885-1886
Gertrude F. Van Dusen	Cataloguer	1885-1887
Philip P. Barton	Assistant	1886-1888
Charles H. Hull	Assistant and Cataloguer	1886-1889
Julia W. Brown	Cataloguer	1887 1891
Emma L. Clarke	Cataloguer	1887 1888
Ellsworth D. Wright	Cataloguer	1887-1891
Charles H. Parshall	Assistant	1889 1891
Mary Fowler	Cataloguer	1890-1899
Gertrude F. Van Dusen	Cataloguer	1890 1895
Willard H. Austen	Assistant	1889 1892
Alexey V. Babine	Cataloguer	1891-1896
William W. Root	Assistant	1892-1895

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Mary I. Crandall	Cataloguer	1893-1898
Edgar L. Hinman	Assistant	1893-1894
Mary E. Griswold	Cataloguer	1894-1900
Edward Maguire	Assistant	1894-1898
Emma A. Runner	Cataloguer	1895-1900
Jennie Thornberg	Assistant and Cataloguer	1895-
Theodore W. Koch	Cataloguer	1895-1900
George F. Danforth	Assistant	1896-1898
Edith A. Ellis	Assistant	1898-
Henry J. Gerling	Assistant	1898-1899
Daniel C. Knowlton	Assistant	1899-1900
Elizabeth S. Ingersoll	Assistant	1900-
Katharine Dame	Cataloguer	1900-1903
Emma Knott	Cataloguer	1900-1903
Willard W. Ellis	Assistant	1902-
Philena R. Sheldon	Assistant	1903-
Mary Fowler	Cataloguer	1903-

DEPARTMENT AND SPECIAL LIBRARIES

Librarian of the White Historical Library

George L. Burr 1890-

Librarian of the Law Library

Alexander H. R. Fraser 1893-

Librarian of the Architectural Library

Julia W. Mack 1901-

Librarians of the Flower Library

Ralph M. Brown 1901-1903

Philena B. Fletcher 1903-

Of the former assistants and cataloguers who continued in library work, mention may be made of H. S. Kephart, afterwards Librarian of the Mercantile Library of St. Louis; H. L. Koopman, afterwards Librarian of Brown University; E. H. Woodruff, Librarian of Stanford University; A. V. Babine, afterwards Librarian of Indiana University, and later Associate Librarian of Stanford University, and now on the staff of the Library of Congress; L. N. Nichols, afterwards assistant in the New Bedford and Brooklyn

Public Libraries; Mary E. Griswold, Emma A. Runner, and Emma A. Knott, who received appointments on the staff of the Library of Congress; Theodore W. Koch, afterwards on the staff of the Library of Congress, and now Associate Librarian of Michigan University; G. F. Danforth, afterwards Librarian of Indiana University; H. R. Mead, now in charge of the Reference Department in California University Library.

The death of Willard Fiske, the first librarian of the university, occurred on September 17, 1904. By his will he bequeathed to the University Library not only his famous Icelandic and Petrarch collections, with ample provision for their care and increase, but also practically all the remainder of his estate, for the uses and purposes of the library, which will probably add eventually about half a million dollars to the endowment of the Library. The Icelandic and Petrarch collections thus united with the Dante and Rhaeto-Romanic collections, previously given by him to the library, will form an enduring monument of his bibliographical attainments, and his ability and skill as a book collector.

The Icelandic collection comprises probably about 7,500 volumes, and includes not only nearly every work published in Iceland, but all works which can in any way throw light on the history, topography, language, and literature of Iceland. With two exceptions, it has all the impressions of the Icelandic Bible and its parts; its series of Icelandic periodicals, whether printed in the island itself, in Denmark, or in Canada, is absolutely complete; and all but complete is its series of laws and ordinances promulgated either by the Danish or the Icelandic authorities. Every published voyage to Iceland is present, not only in its various original editions, but in all its translations, and the cartography of the island is especially well represented. In

addition to the books and pamphlets, the collection includes a great number of broadsides, placards, engravings, and photographs.

The Petrarch collection, comprising nearly every edition or translation of Petrarch's works, and rivaling the Dante collection in the fullness and completeness of the literature concerning Petrarch and the part he played in the revival of learning, contains probably about 5,000 volumes, all handsomely bound, and many of them examples of the best work of famous European bookbinders.

CHAPTER XXII

THE GREAT SUIT

MR. JOHN MCGRAW had been closely identified with the history of the university from the beginning, having been one of the trustees mentioned in the act of incorporation. His active interest continued until his death. In the early history of the university he had presented the McGraw Hall, a building designed primarily to contain the library and the collections of natural history, and to furnish lecture rooms and laboratories for these departments. He did not regard his beneficence to the university as at an end with this gift; he had considered other plans, but had left them to be executed by his only daughter in accordance with her own judgment and tastes.

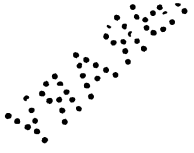
Miss Jennie McGraw was born in Dryden, N. Y., September 14, 1840. She was educated in Canandaigua and at Pelham Priory, an Episcopal school in New Rochelle. Miss McGraw had a native enthusiasm for foreign travel, and a genuine unaffected literary taste. She spent the year 1859-60 in travel in Europe, and resided for a considerable time in Berlin for the purpose of study. In 1875 and 1876, she again visited Europe, and made an extended trip through England and Scotland, visiting also France, Italy, and Spain. After the death of her father, she sailed for Europe, and extended her travels to Sweden and Norway, going as far as the North Cape, and enjoying keenly the grand scenery of the mountains and fiords. She also visited Russia and Italy. She loved to spend days among the famous

paintings of the Louvre and the Vatican. All foreign life possessed a charm for her. She visited Normandy and Brittany, where she found delight in the picturesque architecture, and in the life of the peasantry. She shared fully her father's interest in the university. The large wealth which she had inherited was spent in the purchase of paintings and statuary, with which she intended to fill the beautiful mansion which she was erecting on a site where, for many years, she had dreamed of having a home. It was her wish that the numerous art treasures which she acquired should become the foundation of a gallery which was to be connected with the university. At the opening of the university her fine taste was manifested in the presentation of the chimes, which were her personal gift, and called forth that exquisite poem from Judge Finch, which will be sung by so many generations of students. Shrinking as regards the public, she revealed to those who knew her intimately a loyal and beautiful spirit, which won the deepest regard of those who shared her friendship; generous, it was her wish that her noble fortune should be a source of joy and blessing to others. She was married to Professor Willard Fiske, at the American Legation in Berlin, on July 14, 1880. Her strength had not been equal to the fatigue and excitement of previous travel. Her health failed. She visited Egypt in the hope of being benefited, but the trip failed to restore her, and she desired to return to her native land. She died on September 30, 1881, a few days after her arrival. Her generous spirit was shown by her will. After giving to her husband and friends, and to objects of benevolence, more than a million dollars, the residue of her large fortune was left to the university to found a library which should equal her hopes for its future.

Soon after the death of her father she made a will,



JENNIE MCGRAW FISKE



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in which, after certain specific bequests, she bequeathed to the university the sum of \$15,000 for a Students' Hospital, and \$25,000 to maintain it; \$50,000 for the completion of the McGraw Hall, and for a fund to sustain it; \$200,000 to constitute the McGraw Library Fund, the income of which was to be spent in the support of the library. She also made the university the legatee of her residuary estate.

She had purchased a beautiful site adjacent to the university grounds overlooking lake and valley, upon which, at the time of her death, she was erecting a fine residence of stone. The numerous paintings, statues, and other works of art, and books which she had purchased abroad, became by the terms of her will the property of Cornell University.

On January 8, 1883, after due citation of the parties interested, there was a judicial settlement of her estate. On the 6th of September, 1883, a petition was presented by her husband, Willard Fiske, to open the decree of settlement, to which, on the 24th day of October following, her kinsmen, being heirs-at-law or legatees under her father's or her own will, were admitted as participants in the contest which now arose. The value of the estate which she had received from her father was estimated at \$1,600,000. Her fortune at her death amounted to about \$2,025,000, the property which she had inherited having increased rapidly in value during the prosperous years from 1877 to 1881, in addition to which there was a trust fund of \$250,000 in her favor, from her father's estate, which she was to receive ten years later. This will was now contested on various grounds, the principal being, first, the provision in the charter of Cornell University which limited the property which it might hold to \$3,000,000; secondly, the provision of the statute which forbade a wife having a husband living to bequeath more than one-half of her

property to religious or benevolent purposes. Able counsel were engaged to discuss the difficult and intricate questions of law which were involved. Great interest was manifested in the result of this suit, not only in the university but abroad, especially among educational institutions. It was felt that the creation of a great university library, which would become possible by the realization of this gift, was a state and national blessing, and would enable the university within a short time to gather about it facilities for study, as regards its literary collections, not surpassed by any university in the country. The question of main importance connected with this case, and upon which the other conclusions depended, was the actual value of the estate devised, and the amount of property which the university previously possessed.

The National Land Grant had been bestowed upon the state of New York in trust for a specific purpose. It had received land scrip or title to government land, which might be subsequently selected, not land itself. The value of this land scrip when the university was chartered was sixty cents per acre. The entire amount which the state had received would have yielded at the market price about half a million dollars. In this emergency Mr. Cornell had offered to purchase the remaining scrip, about eight hundred thousand acres, to locate the same on selected lands, and pay all costs of surveys, taxes, etc., and, when the market was favorable, to sell the land and pay all the proceeds into the state treasury, less the actual expenses which he had incurred, the same to constitute the "Cornell Endowment Fund," the income of which should be devoted forever to the support of the university. The condition of the sale or conveyance of the land to him was that he should bind himself to pay all the profits into the state treasury for the university. He was to do

for the state what it could not do for itself, for one state could not locate land in another state without producing a confusion of jurisdiction, and was, moreover, distinctly prohibited by the Land Grant Act. Such possession would also have enabled one state to affect the market value of property in another state by its action. The question was: Do the additional profits from the increased value of the land constitute a separate fund, subject to the special provisions of the act of Congress, or form a personal gift of Mr. Cornell to the university, a gift made possible only through years of labor, and through the risk of his personal fortune? Was the state a trustee for the entire sum realized from the sale of the national land, or only for the amount of the original value of the land scrip, or was the university the owner? If all the sums arising from the sale of the land constituted a part of the original national gift, then the university was limited in its employment of the fund to the terms of that gift. The proceeds were not in that case available for buildings, or for other departments of instruction, save those specified by the Land Grant Act.

Had the state of New York limited or modified the act of Congress by its transfer of the land to Mr. Cornell, and if so, would such action be sustained by the United States Supreme Court? These were some of the questions which were required to be passed upon by the highest state and national judiciaries. The trustees of the university regarded the execution of the trust which they had received as of so binding a character that it was incumbent upon them to maintain the obligation imposed by Mrs. Fiske's legacy. A decision in the Probate Court was not reached until May 25, 1886. From this decision an appeal was taken to the General Term of the Supreme Court of the state of New York, which rendered a decision on the 20th of

August, 1887, reversing the judgment pronounced by the surrogate, and deciding that Cornell University had already reached the limit of property prescribed by its charter, at the time of the death of Mrs. Jennie McGraw-Fiske, and was not entitled to and could not take or hold any of the property or funds devised or bequeathed to it by her last will and testament.

From this judgment of the court an appeal was then taken by the counsel of the university to the Court of Appeals, by which a decision was rendered on November 27, 1888. This decision sustained the position assumed by the contestants of the will. In an elaborate opinion pronounced by Judge Peckham, in which the remaining justices, with the exception of Justice Finch, who took no part, concurred, it was held that a corporation has the right to hold, purchase, and convey such real and personal estate as the purposes of the corporation shall require, not exceeding the amount specified in the charter; that no corporation possesses or can exercise any corporate powers, except such as shall be necessary for the exercise of the powers enumerated and given in its charter, or in the act under which it is incorporated; that no devise to the corporation shall be valid unless such corporation be expressly authorized by its charter, or by statute, to receive it by devise; that the college, being a corporation, has power to take and hold by gift, grant, or devise, any real or personal property, the yearly income or revenue of which shall not exceed the value of \$25,000.

The state was required to give its assent to the provisions of the Act of Congress by legislative act, and the grant was only authorized upon the acceptance by the state of those conditions. This gift was bestowed upon Cornell University upon condition that the Hon. Ezra Cornell should give \$500,000 in money to the uni-



Dr. M. Finch

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versity, and \$25,000 to the trustees of the Genesee College at Lima, in this state.

The university having received this sum the question arose: How can it dispose of the scrip in the best possible manner so that the income of the university shall be increased to the greatest possible extent? The result of throwing upon the market such enormous amounts of the public land as had been donated by Congress to the several states was a fall in the market value of the land, and, of course, of the scrip which it represented, to a sum far less than the established price for government lands. In the fall of 1865 Mr. Cornell purchased of the comptroller 100,000 acres of land scrip for \$50,000, and gave his bond for that sum, under the condition that all the profits which should accrue from the sale of the land should be paid to Cornell University.

On April 10, 1866, the legislature authorized the comptroller to fix the price at which he would sell and dispose of any or of all the lands or land scrips donated to this state, such price not to be less than 30 cents per acre for said lands. He might contract for the sale thereof to the trustees of Cornell University. If the trustees should not agree to purchase the same, then the Commissioners of the Land Office might receive from any persons an application for the purchase of the whole or any part thereof at the price so fixed by the comptroller. The trustees or such persons as should purchase the land scrip were required to make an agreement, and give security, for the performance thereof, to the effect that the whole net avails and profits from the sale of the scrip should be paid over and devoted to the purposes of such institution or institutions as had been or should be created in accordance with the provisions of the act of Congress.

On June 9, 1866, Mr. Cornell in behalf of the trus-

tees informed the comptroller that they would be unable to purchase and locate the land scrip, as they had no funds belonging to the institution that could be appropriated for that purpose. On the same day Mr. Cornell made to the comptroller the proposition, by the acceptance of which a contract was made with him, by which he agreed to place the entire profits to be derived from the sale of all the lands in the treasury of the state, if the state would receive the same as a fund separate from that derived from the sale of scrip, and keep it permanently invested, and appropriate the proceeds from the income thereof annually to the Cornell University for the general purposes of said institution, and not hold it subject to the restrictions which the act of Congress placed upon the fund derivable from the sale of the college land-scrip, or as a donation from the government of the United States; but as a donation from Ezra Cornell to Cornell University.

The comptroller had fixed the price of the scrip at fifty cents per acre, which was somewhat less than the market price for small parcels, but which, in consideration of the large quantity which was to be disposed of, and the fact that the prospective profits to be derived from the sale and location of the lands were to go into the state treasury, he considered fair as well for the purchaser as for the state. "Acting upon the above basis, I propose to purchase said land scrip as fast as I can advantageously locate the same, paying therefor at the rate of thirty cents per acre in good seven per cent. bonds and securities, and obliging myself to pay the profits into the treasury of the state as follows: Thirty cents per acre of said profits to be added to the college land scrip fund, and the balance of said profits to be placed in a separate fund to be known as the Cornell University fund, and to be preserved and invested for the benefit of said institution, and the income to be

derived therefrom to be paid over annually to the trustees of said university for the general purposes of said institution."

The question upon which the Court of Appeals decided this celebrated suit rested upon the interpretation of the agreement which is here cited. The counsel of the university urged that the conditions imposed upon Mr. Cornell in acquiring the land scrip, by which he was obliged to return to the treasury of the state all profits from the same, constituted a part of the contract, and that it was a distinctly specified condition, being a part of the agreement under which the land was sold to him, and under which condition it would have had to have been sold to any other person; in fact, it was an obligation imposed by the legislature upon any sale of the land by the comptroller acting with the land commissioners of the state. Mr. Cornell was in that case fulfilling a contract made with the state.

As interpreted by the Court of Appeals, this condition did not constitute a contract, but the title to the land passed to Mr. Cornell, and he thus became the absolute owner of the land scrip. His profits were to be paid into the treasury of the state, but they were to be paid therein as profits and not as any portion of the purchase price of the scrip; and they were to be paid as profits of Mr. Cornell and received under that agreement as the property of Cornell University, the income of which was to be paid to it for its general purposes, and the principal was to constitute the Cornell Endowment Fund. It was, in the view of the court, something else than an agency created in behalf of the state; the profits which he had hoped to be able to realize in the future were entirely speculative in character and amount, and were dependent largely upon the judgment with which the lands were located, and the times and manner of the sale. The proceeds of the sale of these

were, therefore, Mr. Cornell's own gift to the university. All the compensation he sought for his services, his trouble and his responsibilities, great and onerous as they were, was the fact that all this should go to the university.

In 1874, just before Mr. Cornell's death, he transferred to the university all his right, title, and interest in this vast property, and the university assumed in his place the execution of all obligations and contracts which Mr. Cornell had undertaken in carrying out his noble and far-seeing purpose.

The construction placed on Mr. Cornell's agreement by the counsel of the university made it a debtor to the state for the entire amount realized from the sale of the lands. An additional point, presented with great learning by the counsel of the university, maintained a distinction in law between the right to "take" and to "hold" property by devise. It was claimed that by the law of mortmain, corporations without special license might "take" the title to real property aliened, subject only to the right of the superior lord, in this case the state, to enter and take the land under the power of forfeiture. The charter of the university provided "that it might hold real and personal property to the value of three million dollars." This position received apparent support from the decisions of the courts of other states and from certain decisions of the United States Supreme Court. It was held, however, by the Court of Appeals, that the early mortmain acts in England bear no resemblance to the tenure by which a citizen of this state holds lands. Here there is no vassal and superior, but the title is absolute in the owner and subject only to the liability to escheat. Although some portions of the mortmain laws of England may have been enforced in other states, no such laws have been enforced in this state. As a large portion of

the real estate bequeathed to the university by Mrs. Fiske was situated in other states, it was urged that such real estate could not in its descent be subject to the law of this state, but that the title to real estate is governed by the laws of the state where the real property is situated. But the court held that the direction in Mrs. Fiske's will to convert her estate into money or available securities operated as an equitable conversion of the estate, and hence no real estate in other states had been devised by her to the university.

As the interpretation of an act of Congress was involved in the decision of this question, an appeal was taken to the Supreme Court of the United States, where Senator George F. Edmunds, one of the ablest constitutional lawyers of this country, presented in a plea of great force the position of the university. He claimed that the whole of the moneys derived from the sale of the lands were trust moneys, and belonging to a trust fund, and had no connection or relation to the limitation of the amount of property that the university might hold as provided in its charter. The fact that the state provided for other modes of investment than those mentioned in the law of Congress had no bearing upon the intrinsic nature of the trust itself. To hold that it could, would be to hold that a trustee may change the nature and responsibility of his duties under a trust by mis-investment. The opinion of the court, which was pronounced by Mr. Justice Blatchford, followed that pronounced by the New York Court of Appeals. A dissenting opinion was presented by Mr. Justice Brewer, in which Mr. Justice Gray concurred. This opinion held that the act of the legislature of New York, under which the land scrip was bestowed upon Cornell University, was the legislation of a sovereign state prescribing the duties and powers of one of its officials, and also a declaration of the duties cast by a

trustee upon his agent in respect to trust property. In either aspect its voice was potential in respect to that which was, under that authority, thereafter done by official or agent. In this view, the land commissioners had no authority to make a limitation in the contract, by which thirty cents an acre and the net proceeds were to pass to the national fund. No subsequent legislation on the part of the state of New York and "no agreement between it and Cornell University as to the possession of these funds can have the effect to relieve the state from its liability as trustee, or place the title to those funds elsewhere than in the state." The uses of the proceeds of the land scrip fund are stamped with the limitation imposed by the original act of Congress. Under the decision of the highest court of the state of New York, and of the United States, the Cornell Endowment Fund was the gift of Mr. Cornell to the university. It was not, therefore, subject to any limitation which might apply to the land scrip fund, and could be used for any of the purposes of the university which the trustees might deem proper.

The issues of this great suit were awaited with much interest by the university world, and by the friends of education throughout the country. The decision deprived the university of the largest single legacy which it had ever received. The manifest purpose of Mrs. Fiske was defeated, and defeated under legal forms. The question naturally arose whether any different presentation of the case on behalf of the university would have secured a different decision. The eminent counsel of the university from the beginning, who had conducted successfully its vast legal interests, was unable at this time to act in its behalf, as he was then a member of the Court of Appeals. Upon the issues raised, the conclusion was perhaps inevitable, but later consideration has raised a doubt whether the case in

behalf of the university was adequately presented, and whether the arguments upon which such vast issues were staked were the only ones which might have been urged. According to English law and decisions in the case of an institution deriving its charter from the state, and incapacitated from accepting a bequest by the terms of that charter, it is the state alone that has the right to intervene, and not the heirs-at-law. Such were the decisions in cases occurring under the law of mortmain. The state received that which a corporation could not take. The state alone, in the exercise of its sovereign dignity, can determine whether a franchise issuing from it has been violated. Since the decision of the New York Court of Appeals, the Supreme Courts of the states of Maine and of Maryland have passed upon a similar question, both reviewing the decision in the case of Cornell University, and deciding that the state alone has the right to intervene to test the question whether its law has been violated. The Supreme Court of Maine, in commenting upon this decision of the New York Court of Appeals, states that it stands alone, and that it is the sole legal authority for the position assumed. It held that "the limitation upon this class of corporations is a matter of public policy. As such it is for the state alone to take advantage of its breach if it chooses, or it may waive it; and consequently private parties cannot be permitted to assert against the corporation a violation of the limitation."

The United States Courts have also uniformly held that "restrictions imposed by the charter of the corporation upon the amount of property it may hold cannot be taken advantage of collaterally by private persons, but only by the state which created it." "The corporation may be amenable to the penalty of violating its charter, but individuals cannot call it in question.

The state alone has the right to proceed against it. The state may see fit or not see fit to do so. The state may condone the offense and the legislature may relieve by enlarging its powers."

The New York Court of Appeals has also affirmed in earlier and in more recent decisions, that in estimating the value of the property of a corporation, where there is a limitation in the charter of the amount which the corporation may hold, the market value of the property at the time when it was received must be taken into account, and not the accidental increment of increased value. "If the income exceed the prescribed limit at the time of the grant, it is a question between the corporation and the sovereign power in which individuals have no concern, and of which they cannot avail themselves in any mode against the corporation. The accidental increase in the income of a corporation derived from its vested estates to a point beyond which its charter prescribes, cannot have the effect to divest its title in such estates, or in any portion of them."

Under this view of the law, the property of the university must be estimated at its market value when the title passed from Mr. Cornell to the university. All subsequent increase in value has been accidental, and must be disregarded. The legal bearing of the decisions upon this point was ignored by the counsel for the university, and apparently the oversight was disastrous and involved the loss of this magnificent legacy. Individual opinions of judges who passed adversely upon the questions raised by the counsel for the university have since been cited as stating that their decision would have been otherwise had this question been raised.

One of the results of the decision of the United States Supreme Court was to make the university absolute owner of the Cornell Endowment Fund. The court

held that all profits arising from Mr. Cornell's administration of the land scrip in excess of the market value at the time when it was received were gifts of Mr. Cornell to the university and consequently were free from the restrictions in use imposed by the Land Grant Act itself. This unexpected result makes it possible for the university to use the income of this fund in any manner, and for any purpose, which the needs of the university require. The university had previously regarded the entire income from the sales of the land as subject to the original act of Congress.

CHAPTER XXIII

THE NEW YORK STATE COLLEGE OF AGRICULTURE AT CORNELL UNIVERSITY

CORNELL UNIVERSITY is founded on the Land Grant Act of 1862, the main object of which is "to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life." This object was to be attained largely by teaching such branches of learning as are related to agriculture and the mechanic arts. That is to say, the "industrial classes" at that time were those who engaged in agricultural and mechanic work. From its inception Cornell University has endeavored to carry out the objects of the Land Grant Act. It has stood for true democratic effort to reach the people in terms of their daily lives. It was the first of the great universities that made a successful effort to place these industrial subjects on an equal academic plane with the traditional parts of the curriculum.

In order to understand fully the significance of the Land Grant Act, one must know the historical development of that remarkable instrument. Education was at first aristocratic rather than democratic. Gradually the subjects that have to do with common-day problems have been forced into the curricula of the universities. The germ of the revolution in this country was planted when Harvard, in 1783, after a long struggle, established a chair of chemistry. This marked a distinct departure in the popularizing of education. Scientific or technical education spread slowly, but its progress



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was sure. Chemistry led in the revolution, followed by geology, zoölogy, and botany. Gradually provision for the distinctly industrial phases of life was introduced into colleges and universities. As early as in 1823 manual-labor schools came into existence in this country. These came at the demand of the awakening mechanical genius of the time. They grew slowly at first, undergoing a long period of incubation, from which they began to emerge some forty or fifty years ago. Of late their growth has been great, and their influence has been extended with phenomenal rapidity. They have now passed the initial stage and taken their place among the recognized subjects of education. Along with the demand for instruction in science and the mechanic arts a similar demand arose for instruction in agriculture. At the close of the eighteenth century there was a distinct movement in this direction in Pennsylvania, which went so far as to complete the preliminary organization of a college of agriculture. This college was to be an institution of the county agricultural societies. At that time the policy of the maintenance of higher industrial education by the state had not developed. When the preliminary arrangements seemed complete the project, for some unfortunate reason, was abandoned in the year 1799. As early as in 1821 instruction in agriculture was given in the Lyceum at Gardiner, Me. There was some incidental instruction in agriculture in the early days of the Rensselaer Polytechnic Institute at Troy, which was established in 1823. In 1824 an "Agricultural Seminary" was opened at Derby, Conn. It was founded by Josiah Holbrook and Truman Coe. It provided a course in agriculture and was also co-educational. The venture was ahead of its time, however, and the college was discontinued after one or two years. In the winter of 1846-47 a "Farmers' College" was or-

ganized at College Hill, near Cincinnati. This was really a reorganization of an academy that was started in 1883. The institution had a continuous existence as a college with agricultural features until the beginning of the Civil War. It was reopened after that time, but could not compete with the growing Land Grant colleges. In 1854 the "Ohio Agricultural College" was opened at Oberlin, in Northern Ohio. This was conducted for one year at Oberlin and two years at Cleveland, and finally was removed to Columbus, becoming eventually a part of the State University.

During the first half of the past century the subject of agricultural education was very commonly discussed by the agricultural societies of the United States. The Land Grant Act of 1862 was really in large part a culmination of these discussions. A movement was early under way in New York State. As early as in 1826 Lieutenant-Governor Talmadge recommended that greater attention be given to the general teaching of "the sciences connected with agriculture and the mechanic arts" in New York State. In 1836 the legislature of New York granted a charter for an agricultural college. It was proposed to buy a farm and to establish a school on it. Even in the states which were then on the western frontier the movement early took definite form. In 1850 the legislature of Michigan asked its representatives in Congress to give lands for the establishment of agricultural schools. The legislature of Illinois, as early as 1854, passed resolutions calling upon Congress to establish an industrial university. These are only isolated examples of the widespread interest that was taken in this general movement by farmers and by those who were interested in the public welfare. In Michigan an agricultural college was established in 1857, and this institution, the oldest of the existing American agricultural

colleges, is still one of the leading institutions of its kind in the world.

At the outset Cornell University put itself directly in line with these growing movements for instruction in agriculture. Conferences were held with the leading educators of the state and with the officers of the State Agricultural Society. One of the two professors first chosen was a professor of agricultural chemistry, but no professor of scientific and practical agriculture was appointed. There was a farm consisting of the land presented by Mr. Cornell, not reserved for a campus, upon which stood a small farmhouse, situated near the eastern extension of Sibley College, and several blackened barns. At the meeting of the trustees of February 13, 1868, Joseph Harris, a gentleman widely known as the editor of a popular agricultural paper, who had some personal acquaintance with foreign agriculture, was appointed to the professorship of agriculture. He never entered, however, upon the duties of his position. Soon after the opening of the second term on February 18, 1869, Lewis Spaulding was appointed assistant-professor of agriculture and farm director. It was evident that the entire organization of this department was inchoate, and the first specific instruction was elementary in character, and confined to the observation of farm work. Two prominent agriculturists were early appointed as lecturers in the university, Mr. John Stanton Gould, on June 30, 1869, who had been president of the State Agricultural Society and was actively interested in promoting the agricultural welfare of the state. This noble Friend was a man of great practical wisdom and of large influence in the denomination with which he was connected, whose life had been devoted to the amelioration of the condition of the suffering and criminal classes in the community. He delivered for

several years two courses of lectures, one upon general agriculture and another upon mechanics as applied to agriculture. All who knew this man, so grand in every quality of his being, will rejoice in the memory of his association in those early years. Governor Frederick Holbrook of Vermont had been appointed a lecturer on one portion of the field covered by Mr. Gould, that of mechanics as applied to agriculture, but had never performed any duties. The trustees at this time interpreted the law of Congress as requiring all students in the university to receive certain instruction in agriculture. It was even provided that no students should receive a diploma who had not attended lectures upon general agriculture. This compulsory baptism of unwilling literary recipients with agricultural knowledge afforded a subject of humorous and earnest protest during those early years. The law imposed no obligation that agriculture should be a part of the course of instruction of all students in these national schools, but only that provision should be made for instruction in agriculture and the mechanic arts. Both Mr. Cornell and President White were disappointed at the failure of their efforts to secure an able scientist and teacher as professor of agriculture during the first three years of the history of the university. The department had been equipped with professorships of agricultural chemistry, of veterinary medicine and surgery, of botany, horticulture, and arboriculture. Three courses of study were, however, arranged, a thorough and systematic course of four years leading to the degree of Bachelor of Science, and two abridged courses, one of three and the other of two years, comprising most of the instruction immediately relating to agriculture. These courses were designed to meet the need of students who were unable to complete a full course of study, and who desired to avail them-

selves of a certain amount of agricultural knowledge before returning to their profession as farmers. The requisites for admission to these courses were low, as they were to all courses in the university. For admission to the freshman class in the full course, a good sound English education, including algebra to quadratics, was required; but for admission to the abridged courses an examination in elementary English was alone demanded. Facility was offered to special students to follow certain lines of work in the laboratories and gardens under the direction of the respective professors. On February 10, 1870, the Hon. George Geddes was elected professor of agriculture. He, too, had been prominent in the promotion of the agricultural interests in the state, but did not accept the position. There were, however, in various colleges scientific professors of agriculture who had won distinction for their success in developing instruction in this field, but who were not available. Those who had been nominated here were men rather of general interest in agriculture than of special scientific attainments.

Mr. Louis Spaulding remained in connection with the agricultural department but one year. At the end of that time a practical farmer was made director of the university farm, and the professorship of agriculture remained vacant for a year, when, on June 28, 1871, Henry H. McCandless was appointed professor of agriculture. Mr. McCandless had been connected with an agricultural school at Glasnevin, in Ireland. He had directed the farm, or been foreman or superintendent of some portion of the agricultural interests of that institution, but was unfamiliar with the demands of American agriculture. During his period of service the south barn was erected, whose architecture has been the subject of amusing comment ever

since. In 1873 Professor Isaac P. Roberts of the Iowa Agricultural College was appointed assistant professor of agriculture. From this time dates the proper development of the department and the scientific direction of the farm. The farm was no longer cultivated simply for the production of crops, but to test certain important principles. Soon after his appointment an appropriation of one thousand dollars was made to fit up the Agricultural Museum. Certain illustrative material had previously been ordered by President White, among them the Ran models, a series of one hundred and eighty-seven models of plows illustrating the history, development, and varied use of the plow in different ages, also a collection of cereal grains, a duplicate of the royal collection in Edinburgh, which had been presented by the British government.

For the first twenty-five years the agricultural instruction in Cornell University was a "department" of the university. At the meeting of the Board of Trustees on June 20, 1888, the departments of agriculture, agricultural chemistry, veterinary science, entomology, botany, and horticulture were united under the name, "College of Agriculture of Cornell University," with Professor I. P. Roberts as dean, later director. From that time until the present the growth of the institution has been steady and marked. The first great expansion of the work of the college had come before this time, however, as a result of the organization of experiment stations under the auspices of the Federal act approved by President Cleveland, March 2, 1887, establishing experiment stations in the different states and territories. Before this time, however, an experiment station had been established at Cornell University without state or Federal aid. This institution was known as the "Cornell University Experiment Station."

It was organized at the university in February, 1879, for the purpose of promoting agriculture by scientific experimentation and investigation.

The Faculty of Agriculture of the university, together with delegates—one each—from the State Agricultural Society, State Grange, State Dairymen's Associations, Western New York Farmers' Club, Central New York Farmers' Club, Elmira Farmers' Club, American Institute Farmers' Club, and Ithaca Farmers' Club, constitute the Board of Control of the station.

At the first annual meeting of the Board of Control, held at Cornell University, June 20, 1879, the following officers were elected: President, Professor I. P. Roberts; Director, Professor G. C. Caldwell; Treasurer, Professor A. N. Prentiss; Secretary, Professor W. R. Lazenby.

The immediate management of the affairs of the station was vested in an executive committee, which consisted of the four officers named above, and President G. W. Hoffman of the Elmira Farmers' Club. This committee was charged with the proper disbursement of the funds of the station and the general direction of its work, and carrying into effect as far as practicable the suggestions and wishes of the Board of Control as expressed at the annual meeting.

The Cornell University Experiment Station was finally merged into the Federal station established in 1887. Its most active period of existence, however, seems to have been the first three or four years after its organization. It published three annual reports, which contain much valuable matter and are now much sought.

In the meantime another experiment station had been organized in New York State at Geneva. This was founded on the state law of June 26, 1880. The

station was soon in working order, and in 1882 published its first annual report. From that day until this the work of that institution has been growing in extent and importance, and it is now one of the leading institutions of its kind in the United States. A few other states had also organized experiment stations. The general result of all this work and the agitation that grew out of it was the passage of the so-called Hatch Act by Congress in 1887, supplementing the work of the Land Grant colleges by adding agricultural research thereto. The general provisions of this act are as follows:

To meet the cost of investigation, in addition to instruction, a special appropriation was made. "In order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science, there shall be established under direction of the college or colleges, or agricultural departments of colleges in each state or territory, in accordance with 'the Congressional Land Grant,' a department to be known and designated as an Agricultural Experiment Station." The act of Congress provided "That it shall be the object and duty of said experiment stations to conduct original researches, or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping, as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their compara-



COLLEGE OF AGRICULTURE

Liberty Hyde Bailey
John Craig

Isaac Phillips Roberts
Henry Hiram Wing



tive effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective states or territories."

The immediate result of the passage of the Hatch act was the establishment of a department of horticulture. The preliminary steps in the organization of this department were taken in 1888, but the department was not formally opened until the beginning of 1889, when Professor L. H. Bailey, who had held a chair of horticulture and landscape gardening in the Michigan Agricultural College, assumed charge of the work, having visited Europe in the preceding year in order to inspect similar institutions there. Professor Bailey was made a full professor in the university, as well as head of the horticultural department in the Experiment Station. This chair was one of the earliest of its kind in this country. The work was organized upon a new basis. The testing of varieties of plants, and the mere manual skill in horticultural operations, were considered to be of less importance in an educational institution than fundamental training from the pedagogical point of view. Although there was not a single item of equipment when the department was organized, forcing houses, horticultural library, horticultural herbarium, and other facilities were rapidly provided. The scientific treatment of horticultural subjects in education really dates in this country from the organization of this horticultural department at Cornell University, and it is generally so recognized.

Students came in large numbers, particularly those who wished to take special and advanced work, and for a number of years the larger part of the new departments of horticulture were manned by Cornell men. In fact, the establishment of horticultural departments upon a scientific and pedagogical basis in the universities and colleges may be said to date from the early nineties, when the Cornell work began to get well under headway. Coincident with this educational work, a new type of horticultural literature began to develop as the result of Professor Bailey's writings and work.

The influence of the agricultural work at the university under the able leadership of Director Roberts and his associates began to attract attention in the state. In the year 1892 Governor Flower called the attention of the legislature to the advantages offered by Cornell University for conducting successfully the various state agencies for the promotion of agriculture, which had been previously divided and which, in his view, should be concentrated under the direction of one bureau. He said: "I think it will be conceded that more effective scientific work of this nature can be done in connection with a great educational institution, and the grouping of these now scattered departments of agriculture at one place and under one general supervision will also be a considerable saving of expense and maintenance. Cornell University furnishes an excellent nucleus for carrying on this work, and its facilities and instructors might be utilized by the state to great advantage to agricultural interests. The State Meteorological Bureau is already located there. There is also an Agricultural Experiment Station already established and doing effective work. Moreover, the institution has established practical courses of instruction in agriculture, botany, horticultural

ture, dairy husbandry, animal industry, poultry keeping, and veterinary science. It offers free of charge and without examination to all persons who are sixteen years of age competent instruction in these subjects for one or more terms." The Governor proceeds: "All this is exactly in line with what the state is now trying to accomplish through miscellaneous agencies for the encouragement of modern methods of agriculture. The question presented is whether official efforts can be combined with these private efforts in the interests of both economy and efficiency. . . . It is entirely, however, with a view to such advantage that I would urge the concentration at Cornell University of the various agencies for promoting scientific agriculture. To carry out this suggestion would not only enable the state to do more effective work immediately and at less expense, but would permit the state from time to time to extend its field of usefulness in this direction without the creation of new boards and new officers. The proper diffusion of knowledge with reference to the preservation law of our forests is of vital interest to the future welfare of the state, and could be obtained through such an agency. The same is true of the spread of veterinary science. Public attention has only lately been called to the vast importance of this subject, not merely as it affects the value of our live stock, but because of its intimate relation to the question of public health. Modern science has demonstrated that a large proportion of human diseases is directly traceable to diseases of animals. . . . And proper regard for the health of the community will eventually demand scientific protection against dangers of this kind. . . . Our state is too thoroughly committed to the encouragement of agriculture to abandon it. State energy and public money, however, should not be frittered away by misappropriation and

misdirection. The time is ripe for the adoption of some comprehensive, systematic, and intelligent policy which shall assure the best results at the least expenditure." Acting in accordance with these suggestions the legislature appropriated fifty thousand dollars for a building and its equipment for dairy husbandry. This fine and skilfully designed edifice of Ohio sandstone was erected in 1893 upon the east side of the north quadrangle of the university. It contains lecture rooms, a reading-room, a laboratory for general agricultural analysis and a smaller laboratory for special investigations, and the office of the professor of dairy husbandry; also rooms for the manufacture of butter and cheese and storage rooms, together with a steam engine for furnishing the requisite power to be employed.

The next epoch in the development of the agricultural work of Cornell was the opening of the short winter-courses for farm youth in 1893. The purpose of these courses is to offer opportunities to young men and women who are interested in agriculture but who cannot afford the time or money to go to college, or who perhaps may not be able to pass the entrance requirements for a regular four years' course. This movement had started earlier in Ohio, Wisconsin, and a few other places. It had now invaded the East and was quickly taken up by Cornell University, the spirit of which has always been to reach the people in every efficient way, even though the means seem to cut across traditional academic methods. In this way the university had been able still further to serve the interests of the people of the state. The winter-course has grown in efficiency, and the attendance has grown quite as rapidly as could have been expected considering the lack of accommodations for housing the students. In the five years from 1899 to 1904 the

number of winter-course students was five hundred and thirty. The attendance the present winter is about two hundred, distributed in three branches, namely, the general agricultural course, the dairy course, and the poultry course. There is probably no instruction in the university which is more vigorous, direct, and effective than that which is given in eleven weeks to the winter-course agricultural students. The work is planned for a definite end. It is condensed and energetic. It is astonishing how much the farm-students are able to get out of a course of this kind. They invariably go home with an enlarged idea of agricultural enterprises, knowledge that enables them to make the work more effective, a loyal Cornell spirit, and a determination to make the most of every economic, political, and social movement that tends to the betterment of agricultural interests.

The next epoch in the development of the work of the College of Agriculture was the passage of the so-called "Agricultural Extension Law" by the legislature of New York in the spring of 1894. This bill, appropriating at that time eight thousand dollars for work in one part of the state, was the outgrowth of the horticultural work done by Professor Bailey and his associates. The theory underlying the bill was that the university should do whatever it could to improve the agricultural conditions on the farms in various parts of the state. This work was organized the first year by Professor Bailey. Out of it have grown the various extension enterprises which are now a distinctive feature of the work of the Cornell College of Agriculture, and which impart a new point of view and a practically new method in agricultural education. Of course the beginnings of this kind of work might be traced in many institutions and in many previous years; but the concrete working-out of the purpose

to extend the work of the agricultural college directly to the homes of the people was the result of this New York enterprise.

This extension work is primarily educational rather than experimental. However, much experimental work is conducted on the farms in various parts of the state, in order to discover new truth, but primarily to teach the farmer how to work out his problems for himself. That is to say, it was the effort to press home the fact, as Professor Bailey puts it, "that every farm is an experiment station, and the farmer is the director thereof." The central experiment station in any state can discover general truth and enunciate principles; but these truths must be applied and worked out on each farm for itself. An educational enterprise should follow closely in the steps of research; and this was supplied by the extension work. Hundreds of experiments are now made on the farms every year by a competent staff. Aside from all this the schools were invaded with the purpose of putting the children into touch with their daily lives. The nature-study movement in its various phases has grown out of this idea. The Cornell nature-study movement is by far the largest enterprise of its kind connected with the agricultural phase of the subject. It has awakened widespread discussion in many parts of the world, and its publications have been very numerous.

The extension work also took up the subject of teaching by means of correspondence. As early as the winter of 1896-97 a preliminary class of fifteen hundred farmers was enrolled. In the following winter (1897-98) about five thousand farmers were enrolled. In serving this large class about two hundred and eighty thousand pages of literature were in that year disseminated free. After two or three years of experimenting, the reading course became thoroughly or-

ganized and established in 1900, when Mr. John Craig was made Professor of "Extension Teaching in Agriculture," the first position of its kind in North America. Professor Craig had charge of the reading course and the winter-course work. In 1900 a Farmers' Wives' Reading Course was also definitely organized, there having been some preliminary work in the year or two preceding. At the present time more than ten thousand farmers and farmers' wives are enrolled in these two courses each winter. These persons are provided with literature published by the college, and have returned answers to the various questions that are under discussion. It is the special purpose of these reading courses to reach the farmers and farmers' wives who do not read books on these particular subjects, and to help them to an understanding of the principles that underlie farm operations, and the point of view that should lie behind the best country life.

The idea of extension work in agriculture was formulated at Cornell before the movement originated for the enactment of the law to provide funds for this purpose. In January, 1893, in an address to the agricultural students, Professor Bailey used these words: "For the teaching of agriculture, then, we must make a new species of curriculum, and some of the instruction must be given away from the university, where special needs or special equipments exist. This instruction, for best results, should be given partly in class-work, partly in actual laboratory practice upon a sufficient scale to demonstrate the value of the methods as farm operations, and partly upon farms and in gardens in various parts of the state."

The publications of the College of Agriculture have been voluminous.

Perhaps the greatest epoch in the history of the

College of Agriculture since its organization was its establishment as a State College of Agriculture by act of the legislature, approved by the governor, May 9, 1904. This act came as the result of a hard-fought contest in the state. The contest was an exceedingly complex one, as it involved many questions of educational policy as well as of agricultural education itself. The movement started with a request from the legislature for money with which to build and equip buildings in which to house the work of the college. It was contended by the university on the one hand that the state was obligated under the terms of the acceptance of the Land Grant Act to provide such accommodations. It was contended by the farmers, on the other hand, that the agricultural interests of the state demanded such equipment. The chief opposition came from other colleges and universities, which opposed it from various points of view, but apparently largely from antagonism to Cornell University and to the principle of the state's aiding any particular institution. The contest resulted in a very compact organization of the agricultural interests of the state. The legislature appropriated two hundred and fifty thousand dollars for buildings and equipment, and, in the enactment, established a state college. The law in this respect reads as follows:

“For the purpose of constructing and equipping a suitable building or buildings for a state college of agriculture at Cornell University upon the grounds of said university at Ithaca, N. Y., to enable it to carry on efficiently the work of instruction and investigation in agriculture for the state, the sum of two hundred and fifty thousand dollars, or so much thereof as may be necessary, is hereby appropriated out of any moneys in the treasury, not otherwise appropriated, only one hundred thousand dollars of which shall be

available during the year nineteen hundred and four. Said buildings shall be known as the New York State College of Agriculture at Cornell University, and such buildings and equipment shall be and remain the property of the state. The buildings constructed shall include a principal building costing not more than one hundred and twenty-five thousand dollars, a hall for agricultural machinery, a stock-judging pavilion, and a horticultural building."

A radical reorganization of the College of Agriculture took place early in 1903. Professor Roberts, having reached the age of seventy, was retired. His services marked an epoch in agricultural education. He had taken the Cornell College of Agriculture through the trying experimental era, when agricultural education was in a formative stage. For a generation he had clung tenaciously to his ideals,—a college that should stand for the genuine interests of the persons on the farm, rather than for mere applied science. In all those years he had attacked many farm problems, often single-handed, and worked so cordially with the farmers of the state that he won their undivided sympathy and support. In the later years of his directorship he had associated with him many capable men, specialists in their fields; but his own place, as counselor and agricultural philosopher, was unrivaled and unassailed. When Professor Bailey, his successor, took up the work, he was able to make further progress with the institution and to enter new fields of usefulness because Professor Roberts had entrenched the college in the public confidence. Professor Roberts is now professor of agriculture emeritus.

The reorganization aimed first at the increasing of the faculty, and strong men were called. The old chair of agriculture was further divided, until it is now split

up into agronomy, animal husbandry, poultry husbandry, dairy industry, soil investigation. The entrance requirements were equivalent to those for the College of Arts and Sciences. All other work was put on an equal pedagogic plane. The general purposes and work of the reorganized college, as well as many interesting historical facts, are well set forth in Director Bailey's first report to the president of the university, from which we quote:

"The underlying motive of the College of Agriculture is to reach the farming people in terms of their daily lives. This means the developing of university training in terms of agricultural subjects, the carrying of educational work directly to the homes of the rural people, and the founding of certain lines of work intermediate between the two. The mission of an agricultural college has now extended beyond mere academic lines. Extension work must be added to college and university work.

The Regular University Work

"The first effort of the College of Agriculture is to be devoted to the increasing of the efficiency of the regular university courses in agriculture. The customary courses must be strengthened and new courses must be added. The strengthening of the old regular courses can be accomplished by subdividing them so that the instructor is able to devote himself to a more special field, and by providing better appliances and facilities. Distinct progress has been made in the former category. The gradual subdivision of the old professorship of agriculture is a good measure of progress in agricultural education. The agricultural work in Cornell University started with three professorships,—agriculture, agricultural chemistry, veterinary medicine. In the early days of agricultural edu-

cation, agricultural chemistry was considered to be the one essential and fundamental subject. Yet agricultural chemistry has not greatly differentiated itself in the faculties of the agricultural colleges, whereas "agriculture" has undergone a constant process of disintegration, each new subdivision bringing the college subjects nearer to the work-a-day lives of the people. At Cornell the differentiation at the close of Professor Roberts's administration had gone so far as the establishing of chairs of entomology (largely in its relations with agriculture), horticulture, animal industry, and dairy husbandry (the last two as one unit). This is a most gratifying growth, particularly in consideration of the fact that Professor Roberts's incumbency covered the period of pioneering and experiment in agricultural education. During the past year this movement has been carried several steps further by the establishment of departments of agronomy, soils, animal husbandry, and dairy industry as separate units, and the subdepartment of poultry husbandry; and by the marking out of other units for further development, as rural mechanics, rural engineering, rural economy and sociology, woman's work, landscape gardening and outdoor art, nature study. Still further differentiation must take place in colleges of agriculture as well as in colleges of mechanic arts and of medicine. In material equipment there has been little growth during the past year, but the appropriation made by the last legislature will supply many of the facilities that have been much needed for many years. The first element of growth, however, is the securing of progressive and enthusiastic teachers, and in this regard the expansion of the past year has been most gratifying. The College of Agriculture at Cornell University should stand for the highest possible grade of genuine university work, standing in this respect

no whit lower than any other college in the university. The agricultural subjects are capable of being put into systematic and pedagogic form and of being made the equivalent as educative means of any of the customary or historic academic subjects. The country will always have need of at least a few institutions in which the agricultural courses, both as respects entrance requirements and academic work, are of true university grade. For several years Cornell University has stood for high-grade graduate work in agricultural subjects, and it was the first of the universities to give the degree of Ph. D. for such work. It is the expectation that such opportunities will be increased, for there are special reasons why this university should be signalized for this work.

"The numbers of students pursuing the regular courses in the College of Agriculture and taking graduate work in agricultural subjects for the past year are as follows:

Freshmen	.	.	.	.	.	.	.	.	.	38
Sophomores	.	.	.	.	.	.	.	.	.	17
Juniors	.	.	.	.	.	.	.	.	.	12
Seniors	.	.	.	.	.	.	.	.	.	10
										77
Graduate Students	.	.	.	.	.	.	.	.	.	16
										93

The Intermediate Work

"It so happens in the evolution of education that there have been no institutions in which secondary agricultural work was given. Until very recent years there have been no agricultural institutions below the college; and even those that are now developing are yet largely experimental and uncoördinated. As a consequence the colleges of agriculture have been called upon to do secondary agricultural work. To an

important extent they have had to do work that should have been done by high schools and even grammar schools. There is no agricultural sentiment in the schools, not even in those in rural districts. The schools lead to other lines of college work, largely to the literary and scientific lines, although manual training has recently become a well-established tendency in school work, holding the attention of the pupil who is mechanically inclined. The time cannot be far away when schools will also teach subjects that are related to the lives of country children and that will appeal to the agriculturally inclined; and such teaching will not only make the schools more resourceful but will act as a feeder to the colleges of agriculture. At present the colleges of agriculture are both colleges and preparatory schools, confusedly admitting the trained and the untrained, establishing courses and then fitting men to enter them. In time this will pass. The intermediate work will be segregated from the regular academic work, partly in institutions connected with the colleges of agriculture, partly in new separate institutions in the commonwealth, and partly in new courses injected into existing secondary schools.

"The students of the intermediate grade now in the College of Agriculture at Cornell University are of two categories, specials and winter-course students.

"*The special students* are admitted without examination by the director on presenting evidence that they desire the work for agricultural reasons, and that they are sufficiently qualified in elementary branches to enable them to pursue the studies with satisfaction to themselves and credit to the college. They must be at least eighteen years of age. The special course is designed to meet the needs of farm youth who desire training in agricultural subjects, but who have not been able to prepare themselves to enter the regular course

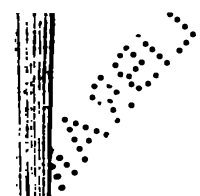
or who have not the time or means to enable them to do so. The farm youth often does not have high-school advantages; he is likely to arrive rather late at a desire for agricultural studies; therefore there are special reasons why the opportunities afforded by a college of agriculture should be opened to him. Particular effort is made to debar persons who are not genuinely interested in agricultural subjects from entering as specials. These special students are usually earnest and capable, and many of them make up their preparatory work and enter the regular course.

"The special students are allowed to pursue any of the regular agricultural electives so far as their previous training will permit. Whether they will be allowed to elect any particular subject depends on the professor in charge; the director of the college merely admits them as students, but does not admit them to classes. The special student usually remains at the university two years or less. Having completed a year's work of thirty hours, he is given a certificate therefor. It is evident that the presence in the same class of four-year men and special men is prejudicial to the best teaching. The developing of a separate course of study for special students is greatly to be desired, but such a multiplication of classes cannot be undertaken with the present teaching force.

"A new kind of special-course work was established last year for those desiring to fit themselves for teachers of nature-study, particularly as regards the bearing of the subject on country life. The instruction is of two kinds—in subject-matter and in teaching practice. The subject-matter is secured in the regular university classes; the practice is secured in the public schools of Ithaca. Persons actually engaged in teaching, and also all students in the university who signify their intention to teach, are eligible. A certificate is



DAIRY BUILDING



to be given on completion of sixty hours in the courses already prescribed, together with such other work in the College of Agriculture as may be approved by the director. This course was not regularly announced in the university publications, but six students availed themselves of it. This number was as many as we desired, for the work has been an experiment. I am now convinced that the course is a useful one and that it will grow.

"The number of special students enrolled the present academic year is sixty-five.

"*The winter-course students* comprise persons who can spend only one winter, or part of it, at the university, and who desire the most immediately practical kind of information and training to help them on their farms. These young men and women pursue an eleven-weeks' course, January-March. Heretofore they have been divided into two groups—those pursuing general agricultural subjects and those pursuing dairying. Almost invariably these students are earnest and enthusiastic, and they derive great benefit from their winter at the university. Probably no students in the university acquire so much in so little time. Nearly all of these students go directly back to the farms or creameries, and they become and remain loyal to the College of Agriculture. It is now proposed to add another co-ordinate branch to the winter-course work—poultry husbandry; and other branches will probably need to be added in the future. The number of students in the last winter course was as follows: in general agriculture, 43; dairy students, 91; total, 134.

The Growth of the Student-Body

"Considering all the disabilities under which agricultural education has been developed, it is gratifying to note the steady growth of the student-body in the

various agricultural colleges. The era of pioneering is now well past. Agricultural education is now beginning to articulate with the public-school systems. Means and methods are proceeding along new pedagogic lines. There is every reason to expect that the next generation will see the emancipation of agricultural education, as the last generation has seen the development of engineering and mechanic arts education.

"In the College of Agriculture at Cornell University the student-body has increased rapidly in the past three or four years, and this in spite of the fact that accommodations are wholly inadequate. The census of this student-body from the founding of the university to the present time is as follows:

"I. Regular and Special, up to May 23, 1904.

Regular	439
Special	333
Graduate Students	47
	<hr/>
	808

"II. Short Course, 1893-1904.

Agricultural	513
Dairy	571
	<hr/>
	1,084
	<hr/>
	1,892

"Following are figures for the past six years:

First degrees given	.	.	.	.	.	.	.	153
Second degrees given	.	.	.	.	.	.	.	40
								<hr/>
								193
	<i>Regular</i>	<i>Special</i>		<i>Winter</i>				<i>Total</i>
1898-1899	44	41		89				174
1899-1900	41	47		83				171
1900-1901	48	51		94				193
1901-1902	49	43		96				188
1902-1903	60	54		121				235
1903-1904	77	65		134				276

“ The students in the College of Agriculture have a number of activities that are peculiar to them. The custom has arisen of having a banquet each spring, to which all the students and staff in the college are invited. They maintain a number of organizations, as the Agricultural Association, Horticulturists' Lazy Club, Jugatae (an entomological club in which the agricultural students have a prominent part), and associations of the general agricultural and of the dairy students in the winter courses. There is a Greek letter fraternity in the college. The students also publish a monthly magazine, the *Cornell Countryman*, which is completing its first year under most successful circumstances. Twice each month the director meets the students and faculty in the Agricultural Assembly.

“ The university farm contains ninety-two acres of arable land, ninety-three of pasture, forty-nine of wood and waste, five for orchards and buildings, and six for other purposes, making a total of two hundred and forty-two acres.

Extension Work away from the University

“ The College of Agriculture is concerned with the welfare of all persons who live on the land. Most of these persons cannot come to college, even for a short time. They must be reached by some form of extension enterprise. The extension work is maintained by funds appropriated by the state. It is professedly a popular work. It endeavors to reach the common problems of the people, to quicken the agricultural occupations, and to inspire a greater interest in country life. It is also a bureau of publicity, whereby there is an exchange of all important matters connected with the progress of the agriculture of the state. The win-

ter course, described above, is a part of the extension work. This extension enterprise is conducted under the general supervision of the State Commissioner of Agriculture.

“ Aside from the winter course there are about four main lines of effort in the extension work: Experimenting directly with the farmer's problems, and inspecting his premises on occasion; conducting reading courses for farmers; giving lectures and holding meetings about the state; carrying a country life and nature-study movement into the public schools.

“ *Experimental and Inspectional Work.* There are three purposes in this extension experiment work: To illustrate or teach,—to instruct the co-operator in methods, to set him at the working out of his own problems, to bring him into touch with the latest discoveries and points of view. To demonstrate in various parts of the state the value or the inefficiency of various new theories and discoveries,—to determine how far these newer ideas are applicable to local conditions. To discover new truth which may be worthy of record in bulletins: this is usually the least of the results that follow from such experiments because the experiments are not under perfect control or continuously under the eye of a trained observer.

“ The general plan of work is mutual or co-operative—the farmer to provide land and labor and to have the crop, the expert to give advice and supervision and, so far as possible, to inspect the work. In some cases the college furnishes seeds and other materials. It does not furnish fertilizers. The benefit of the experiment or demonstration is expected to accrue mostly to the person on whose place the work is done. These demonstrations cover a wide range of subjects, as fertilizer tests, studies of soils in relation to special crops, varieties of plants for particular purposes,

spraying, injurious insects, diseases of plants, feeding of animals, and any special difficulties that arise among the farmers in any part of the state. In 1904 forty demonstrations and experiments were arranged, in seven categories, as follows: agronomy, plant selection and breeding, horticulture, entomology, animal husbandry, poultry husbandry, and dairy industry. Several hundred persons are engaging in these co-operative efforts. In the year 1903 the number of extension experiments and demonstrations in charge of this college was approximately as follows:

Field crop work	about 300
Horticultural work	150
Milk tests	110
Cheese factories inspected	50
Poultry work	7
Entomological work	5
Miscellaneous	25

"*The reading courses* are two—the farmers' and the farmers' wives'. The college prepares the literature that the farmers read, and it maintains direct correspondence with the readers. The reading period covers practically the winter months. The number of readers enrolled on May 23, 1904, was as follows:

Farmers	5,130
Farmers' wives	6,416
	<hr/> 11,546

"*Lectures and Itinerant 'Schools.'* Many lectures are given by members of the staff before reading-course clubs, farmers' organizations, civic improvement societies, and other meetings. Formerly 'schools of agriculture' were held where persons desired them. These are conventions of two to four days' duration, at which one or more sessions are given to the dis-

cussion of a particular problem associated with the agriculture of the place. So far as possible the participants are enrolled as students. A limited number of such schools may be held in the future.

“*Work in the Schools.* The object of the nature-study work is to put the country child in sympathy with its own environment, to open its eyes to the attractiveness of the country and to make it content to live therein. The nature-study work is of the following categories: Organization of junior naturalist clubs among school children of the state. Each club receives a charter; and each month of the school year a *Junior Naturalist Monthly* is published, suggesting what work may be taken up, the junior gardener movement being an effort to interest children in the actual growing of plants of their own. In connection with this work an effort is made to develop exhibitions at the state and county fairs of plants grown by children. This year an effort is making to interest children in growing alfalfa, a plant that is now attracting wide attention in New York State. Up to the present writing about 4,000 children have been supplied with alfalfa seed. Among other objects sought have been: Improvement of school grounds, chiefly through the efforts of children and teachers; this improving consists first in cleaning the premises; thereafter, efforts are made to grade, seed, and plant them; interesting the managers of fairs in the work of children; co-operation has been asked of all the county fairs in bringing the gardening work, nature-study work, and other school work before the people; home nature-study course for teachers, being a correspondence reading and study course for those teachers in the state who desire to fit themselves at home for teaching country-life subjects. In each month of the school-year a lesson is printed



COLLEGE OF AGRICULTURE

Thomas Forsyth Hunt
James Edward Rice

Jay Allan Bonsteel
John Lemuel Stone



for use in this correspondence work. Some of these persons are in the training classes, where, as a rule, it is possible to do some of the best work. Meeting teachers personally, and giving lectures and demonstrations in schools, teachers' conventions, and institutes, so far as time and means permit. It is now desired to co-operate with high schools, academies, normal schools, and others, for the purpose of introducing definite instruction in rural and agricultural subjects. All of these schools have been appealed to within the past year.

The children are all reorganized every year, since teachers change and children enter other grades. The numbers of children and teachers reorganized in the present school-year up to May 23, 1904, are as follows:

Junior naturalists	16,986
Junior gardeners	19,221
Home nature-study students	1,983
School grounds undergoing improvement (1903)	439

" Up to June, 1904, there had been read in the present school-year 33,171 children's letters.

The Experimenters' League

" Closely associated with the extension work is the Agricultural Experimenters' League of New York, which was organized at Cornell University March 3, 1903. The organization is for the purpose of carrying on co-operative experiments in the various departments of farm husbandry; for the promotion of intercourse among those studying farm problems; for the advancement of agricultural education; and for the purpose of supporting legislation favorable to the promotion of these objects. The League was organized with a charter membership of 32, and the membership grew during the year to 89 members. For the present

year up to May 23 the membership is 61, and new members are being added from day to day.

“ The first annual meeting was held at Cornell, January 8-9, 1904, with an attendance of 150-200. The meeting was successful beyond expectations.

“ This year experiments are being conducted along the following lines: Agronomy, 22 experiments; plant selection and breeding, 3 experiments; horticulture, 8 experiments; entomology, 4 experiments; animal husbandry, 3 experiments; poultry husbandry, 8 experiments; dairy industry, 1 experiment.

“ In general agriculture Professor Hunt considers that the two problems standing out most prominently are: The improvement of the meadows and pastures of the state; the substitution of some easily digested food of proper composition to take the place of the western grains and of by-products now purchased so largely by the New York farmer.

“ In the epoch just closing colleges of agriculture have concerned themselves mostly with technical farming, largely with the increasing of the productiveness of the farm. In the epoch just opening great emphasis is also to be laid on the farm home and on the intellectual and spiritual ideals of the family. We are to reach the farmer as well as the farm. Certain great public questions touch the farmer very closely: these must be considered in the College of Agriculture at Cornell University, both in its regular academic courses and in its extension work. Some of these questions are farm labor, rural organizations, good roads, means of communication in the country, sanitation, architecture of farm buildings, co-operation with churches and societies in introducing better ideals of farming and of citizenship, work of the schools, forestation policies, literature for the farm home, the æsthetic appreciation of the country, and means of

improving roadsides and farm properties. The college stands for the entire rounded life of the farmer, not for his crops and flocks alone."

It is often asked whether agricultural students return to the farm. From the leading agricultural colleges as large a proportion of students enter occupations connected with agriculture as students of law enter law practice or students of medical colleges enter medicine. The rapid growth of the agricultural colleges and experiment stations, and latterly of the National Department of Agriculture, has made great demands for men trained in these colleges to enter professional work. So far as the Cornell College of Agriculture is concerned, the following statement from the *Cornell Countryman*, June, 1904, will answer many questions:

"Members of the *Countryman* board have just completed a tabulation of the present occupations of the former students. Quite a large number have not yet been heard from. The percentages are based on the information thus far received.

"Of the total number of living former students who are not in school and whose occupations are known, seventy-one per cent. are in some form of farm work, twenty per cent. are in some form of agricultural education work; or a total of ninety-one per cent. who are either farming, or pursuing some line of work directly allied to agriculture. Certainly the Cornell College of Agriculture does not educate away from the farm. It is very doubtful whether any other professional or technical colleges could show as large a percentage of their graduates who are continuing in the profession for which they prepared."

CORNELL UNIVERSITY: A HISTORY

DISTRIBUTIONS OF FORMER STUDENTS OF THE COLLEGE OF AGRICULTURE.

	Ph. D.	M. S. A.	Graduate Students.	B. S. A.	Regular Students not Graduates.	Special Students.	Winter Dairy Course.	Winter Course in Agriculture.	Total.
Agricultural college and experiment station work . . .	8	24	3	55	4	15	6	2	122
U. S. Department of Agriculture . . .	2	8	2	1	2	—	—	—	15
Farmers, nurserymen, farm managers, etc. . .	—	2	4	35	24	45	46	176	332
Creameries, cheese factories, etc. . .	—	—	—	—	1	9	156	3	168
Editors . . .	1	1	1	2	—	2	—	—	7
Landscape architects . . .	—	—	—	9	—	—	—	—	9
Physicians . . .	—	—	—	6	7	3	1	—	16
Students . . .	—	—	—	5	78	68	4	—	160
Miscellaneous . . .	—	—	—	11	13	11	5	5	45
Died . . .	—	1	1	5	6	7	5	4	29
Occupation unclassified . . .	—	—	3	5	163	161	343	317	1002
Total	11	36	19	131	303	315	571	513	1901

The agricultural constituency is so large that there is every reason for believing that colleges of agriculture are destined to make substantial growth. These colleges are now learning how to teach the subject. The experimental era is passing. The present year (1904-05) has seen an increase of nearly forty per cent. in the students in the College of Agriculture of Cornell University, and more than one hundred per cent. in the number of post-graduates.

The efficiency of any institution is measured by the character of the men that control it. In this regard the Cornell College of Agriculture is unusually strong. Its staff includes men of national reputation.

STAFF OF THE COLLEGE OF AGRICULTURE

1894-95.

FACULTY.

- JACOB GOULD SCHURMAN, A. M., D. Sc., LL. D., President of the University.
- LIBERTY HYDE BAILEY, M. S., Director of the College of Agriculture, Dean of the Faculty, and Professor of Rural Economy.
- GEORGE CHAPMAN CALDWELL, B. S., PH. D., Professor of Chemistry, Emeritus.
- ISAAC PHILLIPS ROBERTS, M. AGR., Professor of Agriculture, Emeritus.
- JOHN HENRY COMSTOCK, B. S., Professor of Entomology and General Invertebrate Zoology.
- HENRY HIRAM WING, M. S. in Agr., Professor of Animal Husbandry.
- JOHN CRAIG, M. S. in Agr., Professor of Horticulture.
- THOMAS FORSYTH HUNT, M. S., D. AGR., Professor of Agronomy and Manager of the University Farms.
- RAYMOND ALLEN PEARSON, M. S. in Agr., Professor of Dairy Industry.
- JAY ALLAN BONSTEEL, PH. D., Professor of Soil Investigation (detached from Bureau of Soils, United States Department of Agriculture).
- MARK VERNON SLINGERLAND, B. S. in Agr., Assistant Professor of Economic Entomology.
- GEORGE WALTER CAVANAUGH, B. S., Assistant Professor of Chemistry in its Relations with Agriculture.
- JOHN LEMUEL STONE, B. AGR., Assistant Professor of Agronomy.
- STEVENSON WHITCOMB FLETCHER, PH. D., Assistant Professor of Extension Teaching in Agriculture.
- JAMES EDWARD RICE, B. S. in Agr., Assistant Professor of Poultry Husbandry.
- GEORGE NIEMAN LAUMAN, B. S. A., Instructor in Rural Economy and Secretary to the Faculty of the College of Agriculture.
- ALEXANDER DYER MACGILLIVRAY, PH. D., Instructor in Entomology.
- WILLIAM ALBERT RILEY, PH. D., Instructor in Entomology.
- JOHN WASHINGTON GILMORE, B. S. A., Instructor in Agronomy and Superintendent of the Farms.
- ROBERT S. NORTHROP, B. S., Instructor in Horticulture.

OTHER OFFICERS OF INSTRUCTION AND ADMINISTRATION.

- HUGH CHARLES TROY, B. S. in Agr., Assistant in Dairy Laboratory.
- WALTER WAGER HALL, Assistant in Cheese-Making.

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WEBSTER EVERETT GRIFFITH, Assistant in Butter-Making.
JOHN WALTON SPENCER, Supervisor in Extension Department.
ANNA BOWFORD COMSTOCK, B. S., Lecturer in Nature-Study.
ALICE GERTRUDE McCLOSKEY, Assistant in Extension Department.
MARTHA VAN RENSSELAER, Supervisor Farmers' Wives' Reading Course.
HERBERT HUGH WHITTEL, A. B., Assistant in Plant Pathology in the Extension Department.
SAMUEL FRASER, Assistant Agronomist.
JAMES ADRIAN BURNELL, PH. D., Assistant Chemist to the Experiment Station.
JOHN MAIR TRUENMAN, B. S. in Agr., Assistant in Animal Husbandry and Dairy Industry.
WARREN H. MANNING, Lecturer in Outdoor Art.
BRYANT FLEMING, B. S. A., Lecturer in Outdoor Art.
G. ARTHUR BELL, A. F. A. SCHOLTERHAUER, W. F. BURLINGAME, Assistants in Winter Dairy School for 1904.
GEORGE WALTER TALLEY, Farm Foreman.
CHARLES EDWARD HUNN, Gardener.

CHARNOCK AUGUSTINE MARTIN, Assistant Professor of Architecture (giving instruction in Farm Home Course).
HENRY NEELY OGDEN, C. E., Assistant Professor of Civil Engineering (giving instruction in Farm Home Course).
ROBERT G. ALLEN, Section Director Weather Bureau (giving instruction in Agricultural Meteorology).

[THE AGRICULTURAL COLLEGE AND STATION COUNCIL.

JACOB GOULD SCHURMAN, President of the University.
FRANKLIN C. CORNELL, Trustee of the University.
LIBERTY H. BAILEY, Director of the College.
EMMONS L. WILLIAMS, Treasurer of the University.
JOHN H. COMSTOCK, Professor of Entomology.
THOMAS F. HUNT, Professor of Agronomy.

Other officers of instruction in the several faculties of the university give instruction in the fundamental branches preparatory to the agricultural electives.

CHAPTER XXIV

BENEFACTORS ¹

Henry W. Sage

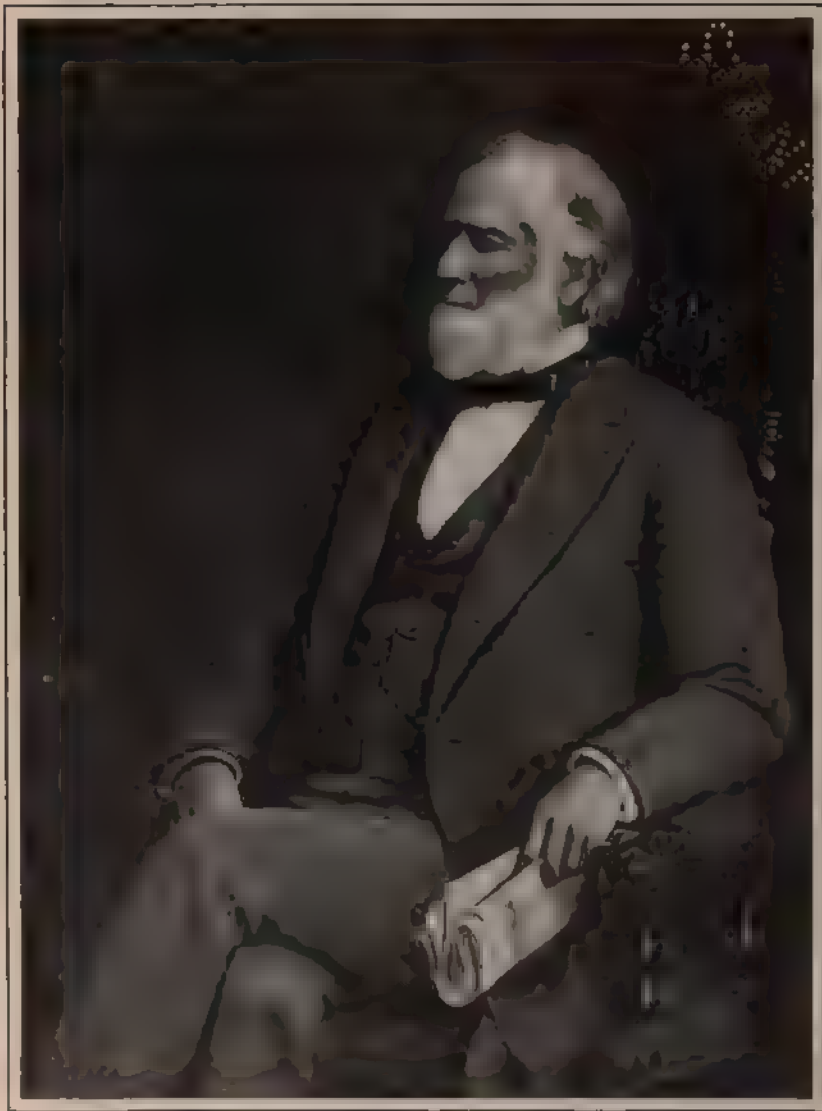
HENRY W. SAGE was born in Middletown, Conn., January 31, 1814. He was a descendant of David Sage, a native of Wales, who settled in Middletown as early as 1652. His father, Charles Sage, married Miss Sally Williams, a sister of the Hon. J. B. Williams of Ithaca. Henry W. Sage was the eldest child. His early boyhood was passed in Bristol, Conn., until his father moved westward in 1827, with the early tide of emigration, and settled in Ithaca. In early years he learned the lesson which so many eminent Americans have had to acquire—that of self-support and self-dependence. This discipline of sacrifice and of arduous toil was one of his earliest acquisitions. It had been the ardent wish of the boy to enter Yale College, but the removal of the family to this state interrupted the plan. Even in Ithaca his desire for a profession did not forsake him, and he began the study of medicine, which, however, he was forced by ill-health to abandon, and in the year 1832 he entered the employ of his uncles, Williams & Brothers, men of great energy and probity, who were merchants and large shipping agents, owning lines of transportation which traversed the lakes of Central New York, connecting, by means of the Erie Canal and

¹ No attempt at completeness has been made in this chapter, the biographical sketches being confined to a number of the principal benefactors of the university. A previous chapter is devoted to the life of the founder, Ezra Cornell. A detailed list of benefactions will be found in the Appendix.

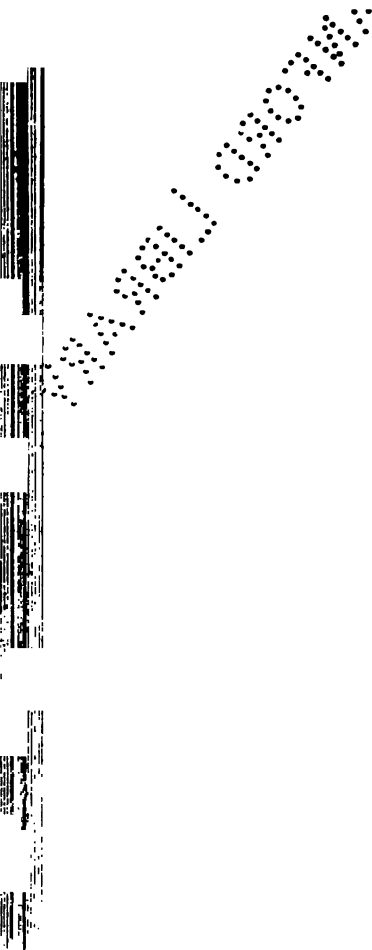
the Hudson River, with the trade of the metropolis. Mr. Sage's energy and business sagacity were soon manifested, and his enterprise enlarged the sphere of his activity.

Five years later he became proprietor of the business. He early foresaw the rising importance of the West, and became interested in the vast forests of Canada and of Michigan. In 1854 he purchased a large tract of timber land around Lake Simcoe, in Canada, where he manufactured lumber on a large scale. He engaged, soon after, in business with John McGraw, and erected in Winona, Mich., a manufactory which, at that time, was regarded as the largest in the world. When comparatively a young man, during the memorable campaign of 1847, he was elected upon the Whig ticket to the legislature. In 1857 he removed to Brooklyn, where he resided until 1880. Here his great ability and, above all, the marked force of his character, made him at once one of the most prominent citizens. He was the friend of the Rev. Henry Ward Beecher, and the great preacher, in all his difficulties, rested upon no heart with more intimate and tender affection than upon that of his parishioner, Henry W. Sage.

In 1870 Mr. Sage was elected trustee of the university, and since 1875 he was president of the Board of Trustees. As a youth he wandered over the hills of this, his early home, and rejoined in the beautiful views of lake and valley; and he saw in the new university an opportunity to realize a purpose, which he had deeply cherished, to promote the higher education of women. Even when residing at a distance he had given generously the endowment which formed the Sage foundation for the education of women and erected the Sage Chapel, which his son, Dean Sage, in noble enthusiasm for his father's purpose, endowed, thus securing to the university the valuable courses of sermons which have



HENRY W. SAGE



been delivered in the university chapel, and which will constitute a permanent fund for the promotion of the religious and moral life of the university. It is evident from this that Mr. Sage was a man of lofty personal faith, who had the courage to follow his convictions wherever they led. His faith in the education of woman, and in the future before her, was a part of his being, in advance of the leading thinkers of this country. Even amid the exacting demands of business he was an earnest student, and nights of laborious reading followed days of exhausting work. He was interested in modern speculation, and in the bearing of scientific truth upon the profound questions of human life and destiny. He read also upon economical questions. Literature, science, and art always interested him. Work difficult for one less strong always appeared easy for him. He never seemed weary when there was work to be done; and he turned with apparently fresh strength to any new subject of interest demanding his attention. He was only weary in case of enforced rest. Promptness and almost inexhaustible energy characterized his life.

In 1880 Mr. Sage removed to Ithaca, and from this time his life was closely identified with the history of the university. However great his donations, his noble personality was his greatest gift to the life of the university. It is not too much to say that services extending over nearly a quarter of a century made him, to all who review this later period, the central figure in its history. Mr. Cornell's magnificent plan, conceived in so large a spirit of personal sacrifice, and maintained with so much tenacity, had not as yet been realized. Indeed, a scheme which had involved so much labor, and which had been pursued for fifteen years with so much devotion, was on the point of failure after the death of Mr. Cornell. The university had retained the national

lands, and paid every year an enormous sum, thus imposing a tax upon its income beyond what it was in its power to sustain. This struggle at last seemed hopeless to the trustees, who had been faithful so long. An offer came to dispose of the balance of the western lands in Wisconsin, consisting of about 500,000 acres, for \$1,250,000. The syndicate, which proposed to make this purchase, was unable to make the initial payment, and it was even proposed to sell the vast interest of the university for one million dollars. At this time Mr. Sage's influence was thrown decisively into the scale to preserve the lands. He maintained that their immediate value was at least three million dollars, and that, by retaining possession of them, and by judicious disposal, even a larger sum might be realized. This decisive action in a decisive moment saved the future of the university, rescued it from perpetual limitation in its means and scope, and made it possible for it to become one of the representative universities of the land. The results of this policy were embodied in a report of the land committee, presented to the executive committee on October 30, 1889.

“ During the year, a sale of timber land, amounting to \$168,203, was reported. The previous sales up to August 1, 1888, had realized \$4,920,747.75. One hundred and sixty-two thousand, six hundred and sixty-one acres were still unsold, whose estimated value was \$1,267,323.86, which, added to the previous sales, made a total of \$6,128,071.61.” The committee added: “ Whatever results may be the outcome of present complications, the university is now established upon an enduring basis. We cannot know how almost wholly we have been indebted to the wisdom and statesmanship of Ezra Cornell, in his arrangements with the state, to let him sell 512,000 acres of land, without admiration and gratitude for the breadth and solidity of the financial

basis he laid for us. His undertaking was to carry the land twenty years, from August 4, 1866, to August 4, 1886, and within that time to sell and return all proceeds, less his actual expenses, to the treasurer of the state. He hoped at that time to create about two and one-quarter millions for the benefit of the university. He died in 1874, after expending \$576,953 of his own cash to carry the land; after which it was carried by the university to June, 1881—in all nearly fifteen years, at a further cost of \$418,300, making, in all, a cost of \$995,253, and the total outcome to that date was less by \$3,301.69 than the actual cost of carrying it. It was a most discouraging labor, and seemed for a time to be utterly hopeless. The university was at that time very poor. Professors were paid \$2,000 per year, and the trustees could not pay even these beggarly salaries without creating a large debt. At one time \$155,000 of such debt was paid from their pockets. Nearly all the available funds were in the land grant. Had any offered a million for it at that time, a majority vote of the trustees would probably have sold it. We had by actual count three hundred and twenty students. The prospect ahead was dark enough, but our dark days were nearly over. In August, 1881, we sold \$480,000 worth of land at one sale, and by August 1, 1886—three days before the twenty years expired—our total sales were \$3,881,764.19, far in excess of Mr. Cornell's wildest dream; and to August 1, 1889, the total sales, added to the value of land yet unsold, are \$6,188,071.61. We have had since August, 1881, \$3,928,796.44 in solid cash, or its equivalent in productive securities, poured into our treasury. All this in eight years! What wonder that we have felt the impulse of such prosperity, that we have had power to increase the pay of our professors as well as their numbers, and ability to build houses, to increase equipments, and thus, by wise use of

all, and by deserving it, to command public patronage? We have secured large gifts from others in buildings and in endowments; but to whom, above all others, do we owe the largest debt of love and gratitude for our present and prospective prosperity? To Ezra Cornell, now sleeping peacefully in yonder chapel. To his purpose of faith and hope, and, under God, to the officers and faculty of the university, working to establish what he so grandly founded." This is an incomparable exhibition of sagacity and lofty devotion to the university; and above the material advantage, is that most beautiful and imperishable element which glorifies human life—the love, the sacrifice, the patient devotion of the benefactors—an invisible but immortal gift to the university.

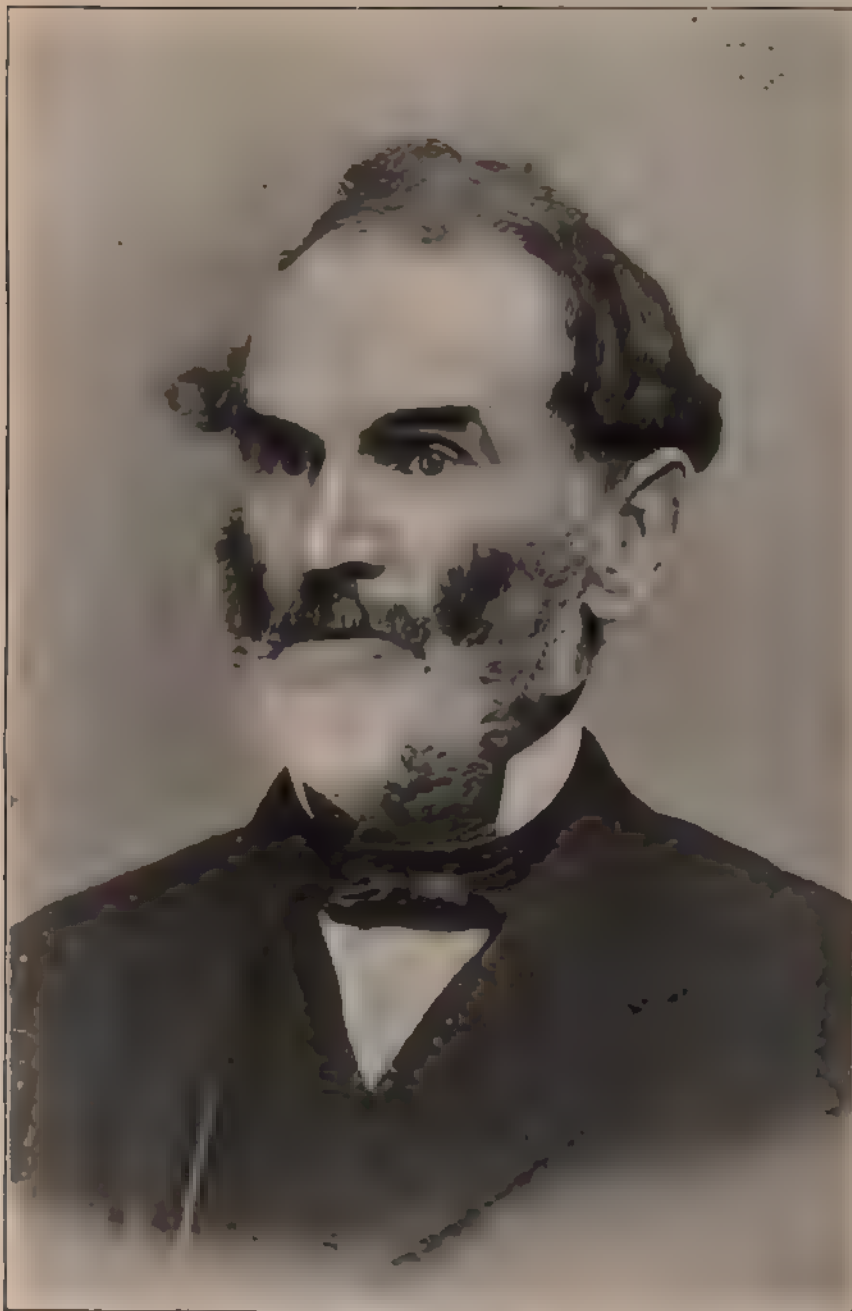
Mr. Sage's personal gifts showed a wise purpose to aid the university when gifts were most needed and would serve it best. In addition to the Sage College, the Sage Chapel, and the endowment of the Sage School of Philosophy, the latter at an expense of more than a quarter of a million of dollars, Mr. Sage gave for the library and its endowment, \$560,000, besides the cost of a residence upon the university grounds for the incumbent of the chair of philosophy, and a gift of \$8,000 for the Archæological Museum.

Mr. Sage was not simply a man of affairs, demanding as they do business gifts of a high order. He did not work for mere acquisition, although valuing independence and the means of enlarged activity which wealth affords. There was nothing in his life to withdraw him from sympathy with men, but everything to give him an interest in all the struggles which form character and constitute manhood. One of his guiding thoughts was not to take from young men the incentive to labor, but through labor, whether of the hands or of the head, to develop their powers. With him work was honorable,

essential to manhood, and he had a vigorous scorn of selfish indulgence. He would say: "Let every young man take life as he finds it, and make the most of it," and his own example showed that the field of such a one would expand with his proved powers. One principle guided his personal life—adherence to justice and honor. That wretched subterfuge, by which men substitute mere expediency for justice and honor, he was incapable of. Mere temporizing when a matter of principle was involved, to secure by shift or device some substitute for just and generous action, was foreign to his nature. The opportunity of service always imposed an imperative claim upon him. He had faith in the right, which would always prove to have been the wisest in the end. He placed before himself as the crowning purpose of his life to contribute to the growth of this university. No one grasped its future with a clearer comprehension of its needs than he. The debt of the university to him cannot be estimated, and was not embraced in his munificent gifts. His foresight in the wise administration of the university lands, in which his advice was fortunately controlling, had made it possible to realize the large returns which formed a part of Mr. Cornell's dream. Mr. Sage had that grasp of principles which made his judgment instantaneous and almost unerring. His friendship was freely accorded to all members of the university, and his generous recognition and interest will be inseparably associated with his memory. His services have not been surpassed in the long line of illustrious benefactors.

On January 31, 1894, the university celebrated the eightieth birthday of Mr. Sage. Upon this day the Museum of Classical Archaeology, Mr. Sage's latest gift to the university, was dedicated. The semi-annual meeting of the Board of Trustees was held at this time, and most of the members were present. The trustees

and faculty met in Mr. Sage's house to express their gratitude, and extend their congratulations upon the occasion. The celebration was not confined to the university. Mr. Sage's benefactions had been recognized as a gift to the nation, and the most eminent of the land joined in expressing their recognition of his distinguished services to the state. President Cleveland wrote from the White House: "As a friend of Cornell, deeply interested in all that relates to its history and future prosperity, I desire to thank you for your long devotion to her welfare, and for the aid you have thus rendered to practical and useful education. I am sure that the testimonial which will assure you that your worth and generous work is appreciated, will be accompanied by the sincere wish of many hearts: that you may be long spared to enjoy the comfort and satisfaction which attend generous deeds." Governor Roswell P. Flower telegraphed his regret at his inability to be present, and said: "Cornell has been fortunate in having interested in her welfare one whose gifts have made him one of the most generous patrons of education in America, and whose sound advice and constant watchfulness have also been invaluable in guiding the progress of this powerful institution. Few lives of four-score years have been so busy in good works as that of Henry W. Sage, and not only Cornell, but the state of New York, must feel proud that such a man has lived among us and has devoted so generously his wealth and time to a noble purpose. The monuments which his love and munificence have built at Cornell will perpetuate his honored name forever." An address, written by Professor Charles Mellen Tyler, was also presented from the faculty, beautifully engrossed and signed by every member, expressing their personal gratitude to Mr. Sage, not simply as an official with whom they had been related, but as a friend to whom



JOHN MCGRAW



they felt a personal indebtedness. Another address was presented from members of the senior class, expressing the gratitude and affection of the entire student-body for devoted services, invaluable counsel, and generous benefactions. In behalf of the trustees the Hon. Stewart L. Woodford, in a few simple but deeply felt words, recalling the events of the twenty-five years in which he had been connected with the board, presented to Mr. Sage, as a gift from the former and present trustees, a vase of solid silver.

Mr. Sage served as trustee from 1870 to his death, on September 18, 1897, and as president of the Board of Trustees from 1874.

John McGraw

John McGraw, to whose generosity the university owes the noble building which bears his name, was born in Dryden, N. Y., May 5, 1815, where he resided until 1848. He became early interested in the manufacture and sale of lumber, and later in the purchase of large forests in Michigan. He resided in various parts of the state, his longest residence, until his removal to Ithaca, being in the vicinity of New York, where his large business centered.

He was chosen a trustee of the university at its opening. His interest in it soon led him to erect a building for the library and the scientific collections, which was completed in 1871. His purposes to contribute to the development of the university were not confined to this single gift, munificent as it was. He left to his only daughter the execution of his beneficence. Mr. McGraw's residence at Ithaca brought him into close connection with the business interests of the university, and his services in the first years of its history were of great value. He died in Ithaca, May 4, 1877. Hon.

Henry W. Sage, a former business associate, thus wrote of Mr. McGraw:

“ Among the most active and useful forces of a nation's life is a large class of the higher ranges of business men—those who originate the enterprises of the period, and direct and control the industries pertaining to them. From these result a nation's prosperity and the foundation of its growth in wealth, commerce, and the elevation and refinement which accompany them. Eminent among this class of men was Mr. McGraw. He dealt with principles and ideas, boldly grasping the outlines of important projects which commanded his attention, and he followed up with all the force of his character any enterprise once entered upon, when his judgment was once convinced of its soundness and utility. His clear, practical head was always a power in the management of the interests of the university. He was upright, prompt, true, sensitive to the nicest shade of honor. His active, practical life was a living exponent of that within, which abounded with faith, hope, courage, fidelity—the qualities which make up and stamp the noble man.”

Mr. McGraw was one of the original trustees under the charter, and served as such from 1865 to 1877. He donated McGraw Hall to the university in 1870.

Goldwin Smith

Professor Goldwin Smith, whose services to the university and numerous gifts have been a contribution to its reputation and its wealth, was born in Reading, England, August 13, 1823. He was educated at Eton, and at Christ Church, Oxford, where he took his bachelor's degree in 1845. He was an elegant classical scholar, winning scholarships and prizes for English and Latin essays, and for Latin verse. He was elected

a fellow and tutor of University College, where he taught for several years, and also a fellow of Oriel College. He was called to the bar in Lincoln's Inn in 1847, but never practiced. He was secretary of two commissions to examine into the government, property, and studies of the University of Oxford. His efforts in behalf of university reform exerted great influence in infusing new methods and life into wealthy, antiquated foundations. He was also a member of the Royal Commission of Education of England, and, from 1858 to 1866, regius professor of history in the university.

Mr. Smith was always a pronounced liberal in politics. No possible favor could induce him to sacrifice his opposition to aristocratic and irresponsible government for popularity or temporary advantage. He can as little brook empty ritualism in religion as an exclusive privileged class in authority. His interest in America and its struggle for freedom caused him to visit this country in 1864. As a steadfast friend of the Union and of republican institutions, his services to our government in dark days were at once recognized. He was welcomed by President Lincoln and our most prominent statesmen in Washington, and by scholars everywhere. Even in his enthusiastic reception, he was ready to peril the favor of his new-found friends rather than abandon his strong sense of justice, as was shown by his public opposition to current political discussion at that time.

At the opening of the university in 1868, Mr. Smith became professor of English history. Numerous students were attracted by his name, and his classes were thronged. Recognizing the inadequate equipment of the library for historical study, he sent for his own valuable library, containing the rare accumulations of a lifetime, and presented it to the university. There

were numerous hardships to the Oxford scholar in an inland village of a new country, in the crude condition of the young university. He wrote often for the college papers, gave receptions to his classes, and sought in every way to incite a cordial feeling among his students. Privately he ascertained the wants of those who were self-supporting, and often ministered to them by gifts of books. It is doubtful whether any university in England or America offered at that time a course of lectures on English history equal to those delivered here.

The residence of Mr. Smith's family friends in Toronto took him, after a few years, to that city, where he married and now resides. For many years he returned annually upon visits, and the students had opportunity to hear one or more of his graphic and philosophical lectures upon some theme of current political interest. His attachment to the university was shown by constant gifts of works in history and literature to the library.

Professor Smith's writings cover a vast variety of subjects besides history. He has defended religion against the deceptive views of Mansel in his Bampton lectures, and discussed in reviews nearly all the prominent questions which have agitated English and colonial politics in the last thirty years. Literature has been indebted to him in many ways, most recently by a life of Cowper. No living English writer surpasses him in clear, incisive style, joined with graphic description and brilliant generalizations.

His reputation has received wide recognition in several volumes which he has published in rapid succession, especially: *Canada and the Canadian Question* (1891); *Loyalty, Aristocracy, and Jingoism* (1891); *The United States: An Outline of Political History, 1492-1871* (1893)—a brilliant sketch of American his-

tory; *Essays on Questions of the Day, Political and Social* (1894); *A Trip to England* (1892); *Oxford and Her Colleges* (1894); *Bay Leaves: Translations from the Latin Poets* (1894); *Specimens of Greek Tragedy* (1894); *Guesses at the Riddle of Existence* (1896); *The United Kingdom* (1899); *Shakespeare, the Man* (1900); *Commonwealth or Empire* (1902); *In the Court of History* (1902); *The Founder of Christianity* (1903), etc.

Professor Smith retains his old interest in the university, and every year his visits are anticipated with the generous enthusiasm of the student world. Many chapters in his books are recognized as more elaborate discussions of lectures, or informal talks which have been given before the students of the university. Invitations to return to England to assume the headship of University College, and offers of other high university positions, have been alike declined for his home in his adopted country. Even a seat in parliament has offered no attraction to him.

Politically, he has supported with great vigor the liberal-union cause in England, and opposed an independent government for Ireland. He has also been active in advocating closer commercial relations with Canada, which has had great influence upon public sentiment in that country. He regards intimate political relations in the future as the manifest destiny, and equally for the interest of both countries.

The corner-stone of the Goldwin Smith Hall, named in his honor, was laid in 1904.

Dean Sage

Dean Sage, elder son of Henry W. Sage, was born in Ithaca, June 6, 1841. He was educated privately by the Rev. Dr. William Walker, a graduate of the Uni-

versity of Oxford, and also at the Albany Law School, where he received the degree of Bachelor of Laws (1861). Becoming a partner of his father in the large business of the latter, he took up his residence in Albany.

Mr. Sage was an ardent lover of nature, and an enthusiastic sportsman. He enjoyed the free life of the open air and had a keen interest in forest and stream. He was an enthusiastic fisherman, spending a portion of every summer in salmon fishing on the Ristigouche River, in northern New Brunswick.

Possessed of a fine literary taste, he wrote in charming manner upon his favorite subjects, contributing most often to the *Atlantic Monthly* and the *Nation*. He was the author of a beautiful illustrated work, entitled *The Ristigouche and its Salmon Fishing; with a Chapter on Angling*. (Illustrations and Maps. Edinburgh, 4to, 1888.) He was also joint editor of the volume on *Salmon and Trout* in the American Sportsman Library.

Mr. Sage fully shared the interest of his father in Cornell University. He endowed the preachership in the Sage Chapel in 1874, a gift which has been increased by contributions from other members of the family since his death. He also gave the building for the Ithaca Medical College. In company with his brother, William H. Sage, he gave the infirmary and endowed it. Shunning ostentation and publicity, his benefactions were the expression of natural generosity. An object presented to him was sure to receive more than a cold and calculating estimate; rather he welcomed with grateful consideration the opportunity to bestow as a personal service. He died in Albany, June 23, 1892.

William Henry Sage

William Henry Sage, the younger son of Henry W. Sage, was born in Ithaca, January 9, 1844. He received his early education under the Rev. Dr. Walker and at the Brooklyn Polytechnic Institute, and was graduated at Yale College in 1865 with high standing, being a member of the Phi Beta Kappa. Entering the business of his father, he resided in Brooklyn until 1880, when he removed to Ithaca. From the latter place he removed in 1898 to Menands, near Albany, his present residence.

Mr. Sage served as a trustee of the university from 1888 to 1904. He was active while living at Ithaca in the development of the university and in its growth upon the æsthetic side. He gave the organ for the chapel. Through his generosity a stone arch bridge over Cascadilla was erected, and the driveways were greatly improved. He purchased and presented to the university the fine Zarncke library, containing over thirteen thousand volumes of works upon German literature, including many special collections, the finest library for the study of German literature at the time in America. Mr. Sage also joined with his brother, Dean Sage, in giving his father's residence for an infirmary, and in endowing that institution with a gift of one hundred thousand dollars. The decoration of the Sage Chapel is due to his generosity. Other important gifts have shown his continued and intelligent interest in the university.

Alfred Smith Barnes

Alfred Smith Barnes, who presented Barnes Hall to the university for the use of the Christian Association, was born in New Haven, Conn., January 28, 1817. He

worked upon his uncle's farm in summer, attending school only in winter. In 1830, at the age of thirteen, he became a clerk in his uncle's store, and the next year obtained employment in a book store with a salary of thirty dollars a year and board. Six years later the firm by which he was employed removed to New York; and in 1838 Mr. Barnes formed a copartnership with Professor Charles Davies for the purpose of publishing the mathematical works of which Professor Davies was the author. This concern began business in Hartford in 1840, but removed to Philadelphia in 1844 and to New York in the following year. It soon became one of the largest publishing houses in the department of school literature in America.

Mr. Barnes conceived the idea of a national series of educational text-books, embracing all subjects taught in schools or colleges. These series became exceedingly successful. Single volumes of the publications of his house had a sale of a million copies. The firm established and published the *Magazine of American History*.

Mr. Barnes inherited a deeply religious nature, and the influence of his home strengthened his earliest convictions. With the possession of wealth, his mind turned to the question how wealth may be best employed. He gave largely for religious purposes, for hospitals, for missionary societies, and for libraries and public institutions. A face of singular attractiveness, irradiated by the charm of a character full of kindness and generosity, was the index of his life. He exercised a wide influence in business circles, and always for good.

He was elected a trustee in 1878, serving in that capacity until his death, on February 17, 1888. Mr. Barnes married Harriet, the daughter of General Timothy Burr of Rochester, on November 10, 1841. He

married, second, November 7, 1883, Mrs. Mary Matthews Smith.

Daniel B. Fayerweather

On November 15, 1890, Daniel B. Fayerweather, until then a quite unknown man, died at his residence in New York, leaving by his will the major part of his estate to various institutions—five hospitals, twenty-one colleges, and the Union Theological Seminary of that city. The total amount thus distributed was \$2,150,000; and included in the gifts was one of \$200,000 to Cornell University. After bequests to his widow, her sister, and several relatives, Mr. Fayerweather made this provision: "All the rest, residue, and remainder of my estate, real and personal, of which I shall die possessed, I give, devise, and bequeath unto my executors to have and hold the same in trust, nevertheless to sell and convert into cash, and to divide the same equally, among the several corporations mentioned in the ninth paragraph of this my will, share and share alike."

The value of his property was supposed at the time of his death to be about three million dollars, but proved to be some five millions. Living a quiet life devoted to business, in the leather trade in that part of New York called the "Swamp," Mr. Fayerweather had not been suspected of possessing more than a substantial competence. Possibly only his legal advisers were aware of the amount bequeathed in his will. Six years after making the testament he added a codicil, in which it was provided that the residue of his estate should go to the executors, thus canceling the former stipulations for its disposal. The codicil making this change was signed on the day of his death; the object being to guard against any possible contest which might

arise under the statute forbidding a gift of more than one-half of an estate for charity or educational purposes, in case the testator had a wife or children living. The provisions of the will were accepted by Mrs. Fayerweather. The executors understood and interpreted their legacy to admit of an independent distribution of the residuary estate without reference to the purposes of Mr. Fayerweather expressed in his selection of colleges. They therefore disposed of over two million dollars, dividing it among eighteen colleges, four schools, and some eleven hospitals. With the exception of gifts to Yale University and to two hospitals, the institutions mentioned had not been included among those originally specified in the will.

A suit was therefore brought by certain colleges, claiming that Mr. Fayerweather did not by the codicil change his purpose as expressed in his will, codicil, and private memorandum. The court held that the executors of the will had no power to divert the estate to institutions other than those mentioned in the original will, and that there was an understanding that the purposes of the deed should be carried out in the codicil. The original decision against the executors, rendered on December 28, 1894, was affirmed by the General Term upon appeal, and later by the Court of Appeals. The case was then carried to the Supreme Court of the United States, where the original judgment was sustained (1904), thus carrying out the wishes of the testator.

John Davidson Rockefeller

John Davidson Rockefeller, son of William A. and Eliza (Davidson) Rockefeller, was born in Richford, Tioga County, N. Y., July 8, 1839. His father was a farmer in limited circumstances, and the son obtained

his earliest education at the district schools near the paternal home in the country. In 1853 the family removed to Cleveland, where John D. Rockefeller entered the High School. About this time he united with the Erie Street, now the Euclid Avenue, Baptist church. Two years later he took a summer course in a commercial college. He then became bookkeeper and cashier in an office with a salary of three dollars per week. In 1858, with one thousand dollars saved and one thousand dollars borrowed, he formed the firm of Clark & Rockefeller, in the produce commission business.

The next year the first oil well was opened at Titusville, Pa. In recognition of the importance of a new method of refining oil, discovered by Samuel Adams, the firm of Andrews, Clark & Rockefeller was formed to use the process, and a small refinery was built (1860), Mr. Rockefeller putting four thousand dollars into the venture. The enterprise, originally begun in Cleveland, was extended to New York, and a partnership was formed by Mr. Rockefeller with his brother William, who had already engaged in the same undertaking in that city. In 1865 H. M. Flagler was admitted to the firm of William Rockefeller & Company, the title of the New York house. In 1870 the Standard Oil Company was formed, and in 1881 the Standard Oil Trust, which was dissolved in 1892. The growth of the oil industry has probably not been equaled by that of any other in the history of commerce. With the discovery of new wells, pipe-lines were constructed to the sea, and railroads organized or acquired. The vast increase of the wealth of the original proprietors is one of the familiar facts of our times.

Mr. Rockefeller has recognized that the possession of riches is a trust involving serious and imperative responsibilities. He has given with great generosity

to educational and religious interests. The endowment of the University of Chicago is his greatest single benefaction. He gave to Cornell University a quarter of a million dollars for a Hall of Physics, on condition that a like sum should be raised from other sources. While many of the larger benevolences of Mr. Rockefeller are known, innumerable smaller gifts are known only to the recipients. These have been bestowed silently, and have wrought their mission of good unobserved of the world.

Andrew Carnegie

Andrew Carnegie was born in Dunfermline, Scotland, November 27, 1837. His father was a master-weaver, owning a few damask looms and employing apprentices. Master-weavers of that time produced the cloth on hand looms, the material being supplied by merchants. As mills for the manufacture of linen developed, the occupation of small manufacturers declined. The first serious lesson of the boy's life came to him at the age of ten, when his father returned home in distress because there was no more work for him to do. Even then the lad resolved that the terror of poverty should be driven away, if it were possible for this to be done. In 1847 the family removed to America, settling in Allegheny, and later in Pittsburg. Here the youth entered a cotton factory, serving as a bobbin boy and, at the age of twelve years, receiving one dollar and twenty cents a week. The mother bound shoes to contribute to the support of the family. At fourteen the lad became a messenger boy in a telegraph office, and learned the art of telegraphy mainly by listening to the click of the instruments, receiving the message by the ear, an accomplishment at that time very unusual. Later he was made an operator, with

a salary of twenty-five dollars a month. His fidelity and alertness soon won for him a similar position on the Pennsylvania Railroad. He learned incidentally to dispatch trains, and soon became superintendent of the western division of the Pennsylvania Railroad.

Fortune brought him in contact with Mr. Woodruff, the inventor of the sleeping-car, and this association, leading to an investment in Mr. Woodruff's enterprise, proved his first step to fortune. The purchase of an interest in a farm where oil wells were found established him in a competency. He organized the Keystone Bridge Company to manufacture iron bridges, and by degrees rose to be one of the greatest iron founders of the times. The immense iron and steel works which he founded became a part of the United States Steel Company, one of the foremost organizations of capital and industry in the world.

Mr. Carnegie has not been simply a business man. His early training gave him sympathy with the poor and with those whose life is consumed in struggle. He has a profound faith in America and in democratic institutions; and his reflective mind, informed by the teachings of his own experience, possesses a broad and original grasp of the great problems of business, of labor and capital, and of political economy. His first book, which attracted attention both in England and America, was *An American Four-in-hand in Britain* (1883). This was followed by *Around the World* (1884) and *Triumphant Democracy* (1886). His mastery of the features of republican institutions, and of their relations to industry and character, is presented in a most brilliant and striking manner in the last volume, which has been translated into the leading languages of Europe. He is also distinguished by intense belief in humanity and in the education of the masses, and has accordingly devoted vast sums to the

founding of libraries in America, in Great Britain, and in the English colonies. He has erected 1,290 library buildings at a cost of \$39,325,240. According to a recent calculation his aggregate gifts for public purposes, including those for libraries and educational and scientific institutions, amount to \$101,488,633. In some of the states more than half the population have access to libraries which he has established. He gave ten million dollars to the Scotch universities. The Carnegie Institute in Washington, for promoting advanced research, was his foundation; he gave it ten million dollars, and a similar sum to the Carnegie Institute at Pittsburg. His benefactions for the year 1904 reached the sum of twenty-one million dollars.

Mr. Carnegie's academic honors have been granted in recognition not only of his generosity, but also of his literary merits and his contributions to economic thought. He has been elected to the distinguished office of Lord Rector of the Universities of Edinburgh and Glasgow, from which institutions he has received the degree of Doctor of Laws.

He was elected a trustee of Cornell University in 1890. The broad policy upon which the university was founded, the equality of all learning, and especially the lofty ideal of Mr. Cornell in establishing an institution for the laboring classes, appealed profoundly to his sympathy. His friendship for Dr. White and Dr. Thurston was an important personal factor in this interest. When the university was smitten by contagion and the careers of many students seemed to be brought to an end, Mr. Carnegie generously offered to meet the expenses of the sickness of all students who needed such assistance, and also to erect a filtration plant which should guarantee pure water to the university. Such a donation at such a time, and given in so gracious and kindly a way, has caused him to be regarded

in a grateful and indeed personal relation by the students of the university.

Frederick William Guiteau

Frederick William Guiteau was born at Trenton, Oneida County, N. Y., September 12, 1811,—the fourth and youngest son of Dr. Luther Guiteau and Nancy Billings his wife. The father was born at Lanesborough, Mass., in 1778, and having studied medicine went to Trenton (then Oldenbarneveld) in 1802, a village quite as prosperous in those days as Utica, it being one of two agencies of the Holland Land Company, which owned a goodly portion of the state of New York. The little community of Trenton is, moreover, famous in the annals of New York State for the many distinguished families and eminent scholars that resided there. Frederick W. Guiteau's grandfather was also a physician, Dr. Francis Guiteau of Lanesborough, a man prominent in his profession and a patriot in the Revolution. The Guiteau family is of Huguenot descent, having emigrated from France to England and America at the time of the Revocation of the Edict of Nantes. Many of Mr. Guiteau's French ancestors were physicians.

Frederick W. Guiteau was educated in the district school at Trenton until the age of fifteen, and subsequently taught a large school of eighty pupils at Prospect, a sister village.

At nineteen he entered the employ of Mr. Ammi Dows of Utica, N. Y., a produce and commission merchant, at a salary of one hundred dollars a year. He was so active in the business of the firm, so useful and so faithful, that early in the second year, and before he was twenty-one, he was admitted as partner, the firm style thereupon becoming Dows & Guiteau. In

1835 a New York house was opened, to which in a few years all the business was removed. He continued in business in that city until 1857, when impaired health caused him to retire, and to go abroad for an extended tour, accompanied by his only sister, Mrs. N. G. Howe. Soon after returning, he removed to his beautiful country-seat at Irvington-on-the-Hudson, where he subsequently resided.

While not enjoying the privileges of a liberal education, Mr. Guiteau had derived from his parents a love for knowledge. During his early years in Utica he set apart certain evenings of each week for study, allowing no social engagement to lure him from his books, and he then began collecting a library, which, though modest in size, contained only the world's best literature. These traits were characteristic of him throughout his life. He contributed a large sum for founding the Guiteau Library at Irvington.

He was a remarkably strong personality. Possessed of a wonderful memory, with his rare conversational powers he was a charming *raconteur*. The soul of honor, he thoroughly detested trickery and deceit. He was tenacious of his principles and purposes, but was ever the courteous, courtly gentleman. His interest in the welfare of young men was especially marked, and found expression in his noteworthy bequest for the benefit of those seeking a higher education.

The clauses in his will relating to Cornell University were as follows:

I give and bequeath to the Cornell University, situated in the town of Ithaca, in the county of Tompkins, N. Y., the sum of one hundred thousand dollars, which said sum I hereby direct to be invested by the board of directors of said university in lawful securities, to constitute a fund to be called by and bear the name of F. W. Guiteau, and the earnings thereof to be used in advancing and assisting needful worthy young men in pursuing their studies in said university.

I give and bequeath all the rest, residue, and remainder of my estate, of every kind or nature, both real and personal, to the Cornell University, upon the same trust and for the same purpose, and to be added to the fund of one hundred thousand dollars given in the sixth clause or paragraph of my will.

The amount of the sum thus bequeathed is estimated at one hundred and seventy-five thousand dollars.

Mr. Guiteau died October 5, 1903, aged ninety-two.

. *Alfred C. Barnes*

Alfred C. Barnes was born in Philadelphia, October 27, 1842. He was educated at private schools and the Polytechnic Institute in Brooklyn, entered the business of his father as mailing clerk, and became a partner with him in 1865. He planned Barnes's *Brief History of the United States*, often said to be the most popular text-book ever published in America.

Mr. Barnes enlisted in the famous Seventh Regiment of New York in 1860, and served in the brief but important campaign in which that regiment participated in 1861 for the national defense. He was later transferred to the Twenty-third Regiment, entering as sergeant, and in May, 1864, being appointed first lieutenant. He also served in the campaign of 1863, at the time of the invasion of Pennsylvania. His regiment was ordered to Corning when the railway riots occurred in that city, and, by his firmness and courage, the disturbances were suppressed without resort to force. In 1879 he was appointed by Governor Cornell as brigadier-general and inspector of rifle practice in the National Guard of New York. From 1884 to 1886 he was colonel of the Thirteenth Regiment.

General Barnes filled many positions of honor and trust in the city in which he resided. He was a trustee of the Brooklyn Bridge and the Brooklyn Library.

Upon the consolidation of several of the great houses engaged in the publication of educational text-books, and the formation of the American Book Company, he became vice-president of that corporation. He was elected president of the Astor Place Bank (New York City) in 1891.

His death occurred on the 28th of November, 1904.

General Barnes gave to the university the Fuertes Geodetic Observatory, which, at his request, received the name of Director Fuertes. He also gave and sustained the Barnes Reference Library in Barnes Hall. Since his death his son, Mr. A. Victor Barnes, and his daughter, Mrs. Harriet Barnes Newberry, have presented to the university \$5,000, the income of which is to be used in enlarging the library.

Oliver H. Payne

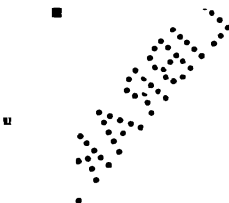
Colonel Oliver H. Payne was born in Cleveland, Ohio, and is the only now surviving son of Hon. Henry B. Payne of that city. His father was a distinguished lawyer, identified with railway and other large corporate interests, and was a member of the Senate of the United States from Ohio for the years 1886 to 1892. One of the sisters of Colonel Payne married the late Hon. William C. Whitney of New York City.

Mr. Payne was graduated from Yale University in the class of 1863. A resident of New York City, he has long been prominent in financial affairs, and is a director of many manufacturing, mining, and railway companies, banks, etc. He is a member of a number of the principal social organizations of the metropolis.

He was the founder (1898) of the medical department of Cornell University. His benefactions to the university have been given with a liberal and public spirit.



WILLARD FISKE



Willard Fiske

Willard Fiske, the first librarian of Cornell University, was born at Ellisburgh, N. Y., November 11, 1831. After spending two years (1847-48) in Hamilton College, he determined to go to Scandinavia, and completed his studies at the University of Upsala, where he became imbued with a life-long devotion to Norse literature, and began to form a collection of Icelandic books.

Returning to America he was employed from 1852 to 1859 as assistant-librarian in the Astor Library. Here he received his training in librarianship under J. C. Cogswell, and continued his bibliographical studies. Taking up chess as a recreation, he founded the *Chess Monthly*, which he edited from 1857 to 1860, latterly in conjunction with Paul Morphy. He took an active part in the organization of the chess congress of 1857, and in 1859 published *The Book of the First American Chess Congress*, including an American chess bibliography. In 1860 he was secretary of the American Geographical Society, and in the next year went to Vienna as secretary to Minister Motley. Returning again to America, he spent the next few years in journalistic work on the *Hartford Courant* and the *Syracuse Journal*. In 1868, while on a visit to Egypt, he was appointed professor of North European languages and librarian in the newly founded Cornell University.

At that time the college libraries were looked upon as mere storehouses, from which books might be taken for home reading, and as a rule were open for only one or two hours on certain days of the week. Mr. Fiske's ideal of a university library was a reference library, like the Bodleian or the Astor, which should be the literary workshop of the university and afford the greatest possible facilities to earnest students in their re-

friend from America, who was returning with him to Florence, when death overtook him at Frankfort on September 17, 1904.

Generous and warm-hearted, modest and unassuming, gifted with a winning manner, Willard Fiske easily found his way to men's hearts and made many firm and constant friends, whom he loved to gather around his board, and by whom his death is deeply lamented. In his bibliographical work he was insistent upon the minutest accuracy and indefatigable in following up every possible clew to the knowledge he sought. As a librarian he had little sympathy with what has been aptly called the "frying-pan ideal" of the library, or with those who look upon books as so many brick-bats to be scattered broadcast as rapidly as possible. He had the greatest sympathy with the needs of earnest students, and took pleasure in encouraging beginners in the work of research. He loved books with a scholar's love, and his greatest desire was to have his collections used by scholars. It is pleasant to think that this desire is to be realized, for by his will his Icelandic and Petrarch collections are bequeathed to Cornell University, already the home of the Dante and R  to-Romanic collections. In his will special provision is made for the care and increase of the Dante, Petrarch, and Icelandic collections, and practically all the remainder of his fortune, subject to some annuities, is bequeathed to the university for the use and purposes of the library without further instruction. This bequest will add eventually about half a million dollars to the library endowment.



Stanford University Libraries



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